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| Year 10: Synoptic AssignmentSpring Term 2: (6Weeks):**Why are we studying this unit of work?**  In preparation for their Synoptic assignment. This will prepare students to be able to complete under supervised conditions. **How does this unit build on students’ prior learning?** This unit builds on students’ knowledge gained so far during theory and practical lessons on animal and plant husbandry, UK land use and associated skills. **How does this unit provide a foundation for future learning?** This unit will support them in their final exam in Y11. **SMSC & Careers**: Skills – teamwork, staying positive, listening, aiming high, Career links – Vet, Vet nurse, farm worker, RSPCA officer, APHA Worker, Trading Standards officer..**Summative assessment:** End points: By the end of the Scheme of work pupils should:* Lower ability: The student has shown some basic knowledge of land based industries, with only limited detail in some areas. Examples provided cover a narrow range. Knowledge of the business and consideration for wider factors such as diversity and relationships in land use management are limited. There is little evidence that one or more scientific principles have been understood in relationship to plants and animals and only very limited technology has been identified. Where used terminology should be broadly accurate and relevant.

 * Middle ability: In addition to the above, Students has shown a good range of knowledge of the business, with some gaps, but making several links to geographical significance of the site, accurate scientific relationships with technology, plants and animals deployed. There is reference to other organisations linked and history of the business concerned. There is basic knowledge of the role skills play in the running of the business, and a basic understanding of the challenges and conflicts that the business faces. Terminology is regularly used to support
* Higher ability: In addition to the above, Explanation is clear and strong and links have been made between knowledge of all aspects of the qualification and the business studied. Gaps in knowledge of the business, its purpose, challenges and relevant legislation and policies which affect it are minimal. Scientific knowledge is clear, accurate and demonstrated with relevant links to technology, plants and animals and skills utilised in the business. Terminology is clear, accurate and routinely used. Integration of knowledge clearly
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| Time | Non-negotiables | Adapt to the needs/size of the class  |
| Key Idea | Content  | Key Vocabulary / Case Study | Suggested approaches to learning and resources  | Assessment/homework |
| 1 | What is the synoptic assignment?  | **Know more:** What is this years synoptic assignment about?**Do more:** Annotate the synoptic assignment. **Go further:**Aim high to gain a deeper understanding into the synoptic assignment.  | Frayer: Heterotrophic nutrition  | **Connect:** Recall / exam practice **Content:** * Introduce students to the synoptic assignment.
* Teacher to break down the rules and expectations of this half term for the synoptic assignment.
* Annotation of the synoptic assignment brief under visualiser.

**Checkpoint – Whiteboards – What are the 4 tasks?****Concentration: Annotate task 1** **Consolidation**: Exit Ticket**Challenge:****Support:**  | Exit ticket |
| 2 | Task 1 Preparation  | **Know more**: What is a Risk Assessment? **Do more:** Complete two risk assessments. **Go further**:Aim high to develop a deep knowledge into the various nutritional values  |  | **Connect:** Recall / exam practice **Content:** * Think Pair Share – What should be included in a risk assessment?
* Mind map of the hazards surrounding animal handling and feeding and soil sampling.
* What strategies can be put in place to mitigate those risks?

**Checkpoint – Whiteboards – List the hazards.** **Concentration:**  Complete Risk assessment for Soil sampling and Animal feeding and handling.  **Consolidation**: Green pen improvements.**Challenge:****Support:**  |  |
| 3/4 | Task 2 Preparation (2 lessons) | **Know more**: What is a soil sample? What are they used for?**Do more:** Explain how to complete a soil sample **Go further**:Aim high to develop a deep knowledge into the requirements for optimal growth in livestock.  | **Push word: Agronomist** | **Connect:** Recall/Exam practice **Content:** * **Think Pair Share: What is an agronomist?**
* **Push word: Agronomist**
* Teacher to share methodology for collecting soil sample and determining pH and soil texture.
* Students given example soil test results – what can you tell?
* What crops grow in different soils? Acidic, Neutral and Alkaline
* How can you alter soil pH?

**Checkpoint – Select the sequence for methodology****Concentration:** Students to write short report on sample soil test to include how to complete a soil test and suggest suitable crops.  **Consolidation**: Green Pen improvements from visualiser. **Challenge:****Support:**  | Peer Assessment |
| 5/6/7 | Task 3 Preparation (3 Lessons) | **Know more:**  What is the assignment brief?**Do more:** Produce research notes about the assignment brief. **Go further:**Aim high to develop a deep knowledge into different life stage requirements.  |  | **Connect:** Recall Quiz**Content:** * Students/teacher to annotate assignment brief.
* Students to use tablets to research possible suggestions for the land use within the assignment brief.

**Checkpoint – What could the land be used for?****Concentration:** Produce 2 pages of research notes in preparation for the assessment date.  **Consolidation**: Quiz**Challenge:****Support:**  |  |
| 8 | Task 3 Final preparations | **Know more**: What are the impacts of an unbalanced diet in livestock?**Do more:** Explain the impact of an unbalanced diet in livestock. **Go further**:Aim high to develop a deep knowledge into the impacts of an unbalanced diet. |  | **Connect:** Recall quiz/exam skills **Content:** * THINK PAIR SHARE– what are the impacts of an unbalanced diet in livestock?

IMAGE GALLERY: Consequences of improper diet (Malnutrition, Obesity, Stunted Growth and Skeletal problems).* Image of dairy cow – impacts of unbalanced diet such as (lack of milk and protein yield, laminitis)
* Image of hen – Impacts of unbalanced diet both in laying hens and meat birds.
* Image of pig – impact of unbalanced diet (behavioural impacts such as tail and ear biting)
* Carousel activity: Diseases in livestock: Scurvy, Rickets, Anaemia and milk fever – nutrient deficiency

**Checkpoint – Whiteboards – Select impacts of an unbalanced diet in pigs.** **Concentration:** Explain the impact of an unbalanced diet in two different species. **Consolidation**: Exit ticket**Challenge:****Support:**  |  |
| 7 | How to complete research on a project?  | **Know more:**  What are your assignment brief plans?**Do more:** Complete independent research into the brief.**Go further:**Aim high to produce research notes for your assignment. |  | **Connect:** Recall Quiz**Content:** * Complete supervised research for assignment brief.

**Checkpoint – What is the brief?****Concentration:** Consolidate research into 2 pages of A4 notes. **Consolidation**: Green pen improvements. **Challenge:****Support:**  | Whole class feedback |