Secondary Science SBE
Lesson Plan Framework

Lesson Title: What is a Clone? – Genetic Engineering

Group 10A4 **Location** M23 **Date/Time** 11th June/ 11h25 to 12h25

Learning Objectives
Students will …

- learn to define what a clone is?
- describe the advantages and disadvantages of genetic engineering.

Learning Outcomes
Students should be able to…

- define a clone as an individual which has been produced asexually from its parent. It is genetically identical to the parent.
- identify the "designer babies" as one of the genetic engineering disadvantages. Genes that cause genetic diseases can be removed in the future (advantage).

National Curriculum/Syllabus References (incl. reference to previous KS)
Ks4 Biology, GCSE Science, text book AQA Science, unit B1b 6 – Variation, sub topic Cloning and genetic engineering.

Links to other areas
Students will be able to learn the lesson topic using some kinaesthetic learning styles; literacy skills and citizenship.

Previous assessment details informing this lesson.
Last lesson was useful to make pupils developing new kinaesthetic learning styles linked with their subject knowledge.

Differentiation
I will use different learning styles, like visual aids, kinaesthetic activity, writing skills, for the entire class have the opportunity to develop further knowledge by using a variety of learning styles able the entire class to develop further knowledge on different learning areas.

Health and Safety
Lesson totally safe for class.

Lesson Development

Timing (min)	Teacher activity	Pupil activity	# Resources	Assessment Items
3	Register	Students will pay attention to the register	Teacher planner	-
10	Sharing lesson objectives as well setting instructions for the starter activity.	Students will pay attention to lesson objectives, understanding what a clone is as well advantages and disadvantages' of genetic engineering. As a starter students will take from a box a piece of paper with a concept name that they need to define by interacting with class and teacher.	Computer Projector Box Concepts cards	Q+A
10	Going over a power point to give a brief explanation about the topic.	Students will be listening and giving some feedback. Hopefully students will know what a clone is related with last lesson about asexual reproduction.	Computer Power point White board booklet	Q+A
2	Watching a cloning video…	Students will have the opportunity to watch a short video about cloning.	Computer video	-
15-20	Setting instructions for a debate session.	Students will pay attention to teacher instructions. Class will be split in two groups that will have a time to discuss the advantages and disadvantages' of cloning, to talk during a debate session moderated by the teacher.	White board Paper Books booklet	Assessing students developing thinking and communicative skills.

10	plenary activity	Introducing the idea of advantages and disadvantages of genetic engineering. Students need to write on their books at least one advantage and one disadvantage of genetic engineering.	Books White board	Q+A Assessing students answers and make sure that all students are on task.
5	Setting instructions to pack away.	Students need at home to revise the last 3 lessons to be ready to do the tasks during next lesson and also an end of unit test. Cleaning desk and be ready to go.	Booklet books	Homework

Lesson Evaluation

Lesson Rating – My Performance *(To be completed at the end of every lesson)*

Criteria	Very Good	Good	Satisfactory	Unsatisfactory
Knowledge				
Resources				
Lesson Objectives				
Behaviour Management				
Risk Assessment				
Differentiation				
Feedback to pupils				
Assessment				
Variety & Pace				
Level appropriate				
Visuals – high quality?				

General Comments (Improvements for your teaching and/or pupil learning)

Were your Outcomes Achieved? (Include details of Evidence)

Teachers Lesson Rating – (*To be completed at the end of every lesson)*

Criteria	Very Good	Good	Satisfactory	Unsatisfactory
Knowledge				
Resources				
Lesson Objectives				
Behaviour Management				
Risk Assessment				
Differentiation				
Feedback to pupils				
Assessment				
Variety & Pace				
Level appropriate				
Visuals – high quality?				

Teacher Comments