Ecosystems – Year 6 Transition task

The Science curriculum at Mossley Hollins aims to foster a love of the subject where students live and breathe science in all that they do, questioning everything that they see around them.

The Ecosystems topic at the start of Year 7 acts as a building block for knowledge by revisiting and extends the knowledge gained in the earlier key stages. It also prepares them for the year 9 topic on evolution as well as the GCSE topics on evolution and ecosystems. They will study food chains and food webs to show interdependence, competition and energy flow. They will look at how external factors can affect the organisms in these ecosystems including toxins and environmental changes. They will study the idea of biodiversity and how organisms are classified into the five kingdoms.

Your task:
The council want to spray insecticide in a Mossley park in order to kill hairy caterpillars that give animals and humans a bad irritation if they touch them. These brown-tailed moth caterpillars are eaten by a few birds, such as crows and robins, but there are so many of them that the park's hawthorn and cherry trees are in danger.

You need to complete one of the tasks below to present at the local residents' group to the council, either in support of or against this idea, explaining the reasons behind your views.

Tasks to be completed	Instructions	I have completed it
Option 1	Draw a diagram, paint a picture or make a model of the habitat that you would expect to find in Stamford Park (or another park you live near). Add key words to your diagram or model and give a brief description of what a habitat is.	
Option 2	Draw, paint or model the food chain/web using the information above. Which of the animals are predators or prey? What adaptations does your each animal have to help it survive? Can you put the information into a diagram of numbers?	
Option 3	Prepare a report from the local residents' group to the council. You could present your ideas as a letter to Tameside council or a poster you would display. Include information on what pests and pesticide are. Using your food chain and pyramid of number explain the effects that pesticides would have on the populations of each animal. How would the pesticide be helpful? How might the pesticide affect other animals? What happens to the pesticide?	

Self assessment: Tick off each point you have included.

Level	I have…
Working towards	1. Correctly used the term 'habitat'. 2. Identified predators and prey and use those terms correctly. 3. Explained the features of an organism. 4. Drawn out a simple food chain. 5. Described how using the poison will help people.
Developing	6. Correctly used the terms 'pest' and 'pesticide'. 7. Explained the possible effects of the pesticide on the populations in the area. 8. Illustrated points about population changes with reference to other predator– prey relationships. 9. Described how other organisms in the area may depend on the caterpillars and the possible effects of their removal.
Securing	10. Correctly used the term 'ecosystem'. 11. Explained the adaptations of an organism. 12. Drawn out a simple food web and use it to make predictions about population sizes.
Exceeding	13. Used a pyramid of numbers to illustrate pesticide concentrations in a food chain. 14. Illustrated my answer with an accurate description of problems with persistent pesticide on top predators.

WWW	
EBI	