

## The Sustainable Village - Answers L3

<b>1</b>	<b>Answers could include:</b> Planting the seed Pesticides (spraying), herbicides and fungicides Harvesting and Drying Transport costs				Ploughing, harrowing and drilling Fertilizer Feeding grain to animals used in meat production Packaging/production of plastics			
<b>2</b>	The remains of dead plants and animals compressed over millions of years							
<b>3</b>	This describes the point when the world's supply of oil and reserves cannot keep up with demand							
<b>4</b>	<b>Answers can include:</b> Cost of diesel for farm machinery Transporting a) food for animals b) pesticides and other chemicals used on farms c) food to market Oil used to make plastics for packaging				Heating greenhouses			
<b>5</b>	This is the distance travelled from the production site of food to the shelf. It gives an indication of how much fuel it has taken to get food to the shelf and therefore, further reduced precious oil reserves.							
<b>6</b>	Through coal powered or nuclear powered power stations.							
<b>7</b>	<b>Answers can include any of:</b> Wind power Bio fuel boilers		Solar power Thermal energy		Hydro power Plant based fuel alternatives			
<b>8</b>	By producing power for heating of animal and plant production areas, lighting and electrical equipment. Potential use of fuels to run machinery and power tools used on the farm. Transport of food into and materials out of the farm to the local area.							
<b>9</b>	All machinery for lifting, transporting, fertiliser and pesticide application, movement of animals, uses oil based fuels.							
<b>10</b>	a) 144 onions, 360 carrots, 300 potatoes. b) $144 / 12 \times \pounds 2.98 = \pounds 35.76$ $360 / 15 \times \pounds 3.90 = \pounds 93.60$ $300 / 5 \times \pounds 2.10 = \pounds 126.00$ c) $250 / 9 = 28$ gallons							
<b>11</b>	Vegetable peelings	Grass cuttings	Plant prunings	Egg shell	Cardboard	Left over vegetables	Straw	Manure
<b>12</b>	Ballpoint pens, DVDs, clothes, lipstick, luggage, motor oil, plastic bottles, shoe polish, shoes, sun glasses, surf boards, sweaters toothbrushes, toothpaste, toys. Plastic containers      Plastic bags      Plastic or moulded chairs Mobile phones      Computers      Petrol, diesel      Cooking materials  <b>Name FOUR alternatives that you could use.</b> Paper bags or linen/ woven/ cotton      Wooden chairs and furniture Stainless steel saucepans      Any natural fibre based product      etc.							
<b>13</b>	It is running out, releases carbon dioxide (a greenhouse gas) as a by-product, etc.							
<b>14</b>	Use low energy light bulbs Insulate the walls and roof Use double glazing Reduce use of power showers Wear extra clothes to reduce heating costs				Switch off lights – have timers Lag all heating and hot water pipes Boil the kettle for smaller amounts of water Use thick curtains across doors and windows			
<b>15</b>	Insulate the roof, walls Double thickness walls Insulation under carpets and floors				Double glazing Insulation between floors			
<b>16</b>	They contain air spaces which helps to form a gap between warm air spaces and cold air. It prevents easy transfer of heat.							
<b>17</b>	Hazel and willow are fast growing and renewable. They dry out well and make a good source of dry fuel. Other wood can be used but must be chipped into correct size pieces. Cereal and grass crops can also be used in some systems.							
<b>18</b>	a) 4 tonnes for 6 months = 667 kg for 1 month b) 167 Kg per week							

