**Homework Menu Grid: Energy 1**

Complete some of the tasks from the grid below to reach a total of points over this unit of work. Try and cover a variety of tasks over the unit so that you’re practising different skills. Once you’ve completed a task, colour that box on the grid to keep a record of your points. Can you get the highest point score this unit?

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| **Topic** | **1 Point** | **2 Points** | **4 Points** | **6 Points** | **10 Points FGF** |
| **Types of energy.** | Write the definition for energy and what the units for it are. | Write 5 types (stores) of energy. | Write a description of 5 types of energy. | Draw a cartoon of an object using different types of energy. | Write a song, rap or poem about the different types of energy. This must be high quality to score 10 points. |
| **Energy transfers.** | Complete this.  \_\_\_\_\_\_ 🡪 \_\_\_\_\_\_\_ | Complete this. | Convert these numbers.  2000J 🡪 KJ  3.5KJ 🡪 J  100J 🡪 KJ  23,000J 🡪 KJ | Write a letter explaining to Mr Rimmer what the conservation of energy is. Use examples. | Draw an A3 poster showing how everyday items transfer energy. You need to include 3 examples with numbers showing the energy. |
| **Energy in food.** | Identify the main molecules in food. | Describe the contents of a Big Mac burger. | Explain how you could investigate which food has more energy.  A piece of chocolate, a handful of crisps. | Find two packages of food in your house. Compare the amount of energy in each and the molecules they are made of. | Mr Surridge wants to grow big and strong.  Design a meal plan for him to eat. Explain each part. |
| **Energy and health** | What two units can be used to measure the amount of energy in food? | Convert these numbers.  230Kcal 🡪 cal  1400Kcal 🡪 cal  23Kcal 🡪 cal  200Kcal 🡪 cal | Convert these numbers.  200cal 🡪 Kcal  20cal 🡪 Kcal  3cal 🡪 Kcal  0.1cal 🡪 Kcal | Write a paragraph outlining what a vegan diet is. | Create resources (poster, speech, PowerPoint) to the class explaining why certain foods have more energy and why a healthy diet is important. |

**Homework Menu Grid**

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| **Useful and wasted energy** | Describe what useful and wasted energy is. | Calculate the efficiency of this. | Calculate the efficiency of this. | Write a paragraph explain why it is important to have appliances that have good energy efficiency. | Write a letter to Mrs Windebank explaining how we could make the science department more energy efficient. |
| **Conduction** | Define conduction | Explain why pans are made from metals. | Draw a labeled particle diagram showing conduction. | Design an investigation to find what is the best conductor out of a glass rod and metal rod. | Make a model showing how conduction works. |
| **Convection** | Define convection | Explain why food cooks quicker at the top of the oven. | Draw a labeled particle diagram showing convection. | Make a Venn diagram comparing conduction and convention. | Make a model showing how conduction works. |