



## 2. Interpreting Data

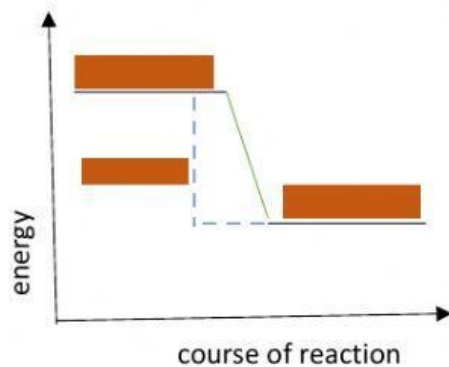
Determine whether the following reactions are exothermic or endothermic.

| Reaction                                                                  | Temperature change | Exothermic or endothermic? |
|---------------------------------------------------------------------------|--------------------|----------------------------|
| $\text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2$                      | -5 °C              |                            |
| $\text{CH}_4 + 2\text{O}_2 \rightarrow \text{CO}_2 + 2\text{H}_2\text{O}$ | +30 °C             |                            |
| Hand warmer                                                               | +25 °C             |                            |
| Instant ice pack                                                          | -10 °C             |                            |

### 3. Energy Level Diagrams

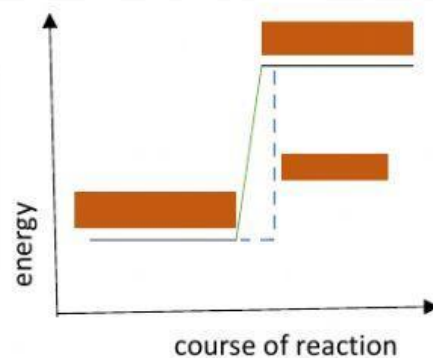
Fill in the gaps.

This is an exothermic / endothermic reaction.



**Words**  
Reactants x 2  
Products x 2  
Energy absorbed  
Energy released

This is an exothermic / endothermic reaction.



#### 4. Summary Table

Fill in the summary table.

|                                               | <b>Exothermic</b> reaction | <b>Endothermic</b> reaction |
|-----------------------------------------------|----------------------------|-----------------------------|
| Energy released or absorbed?                  |                            |                             |
| Which has more energy: products or reactants? |                            |                             |
| Example 1                                     |                            |                             |
| Example 2                                     |                            |                             |