

# Teaching and Learning Content: Science

Year Group: 10

Spring Term - Half Term 4



**Quantitative Chemistry-** Students will be able to apply quantitative measurements to calculate formula mass and percentage of an element in a compound

**Particles** - Students will be able to explain how the particles model can explain changes of state, internal energy, specific latent heat of fusion and specific latent heat of vaporisation.

## Home Learning:

Your son/daughter will be provided with a knowledge organiser and will be provided with question to answer based on the core concepts taught. Students are expected to have their homework completed at the end of every topic.

## Key Questions:

### Quantitative Chemistry

- What is the law of conservation of mass?
- What is the relative atomic mass?
- How do you calculate relative formula mass?
- How do you calculate the percentage of element in a compound?

### Particles

- Name 6 changes of state?
- What is density? How is it calculated?
- What is meant by internal energy?
- What is meant by the specific latent heat of fusion and specific latent heat of vaporisation?
- How is latent heat calculated?

## Diagnosis

- Recall Quiz
- Hinge Questions and Exit tickets
- Deliberate Practice Questions
- Feedback from teachers marking.

## Therapy

- Reteach lesson – Respond to teachers marking.

## Students will:

### Quantitative Chemistry

- Be able to describe the law of conservation of mass.
- Be able to describe what is the relative atomic mass.
- Be able to calculate the relative formula mass of compounds.
- Be able to calculate the percentage of an element in a compound.

### Particles

- Be able describe what happens to particles as they change state.
- Be able describe what is density and explain how it is calculated.
- Be able describe what is internal energy.
- Be able define specific latent heat of fusion and vapourisation.

## Testing

- Final end of topic test.