

Key Stage 3 Science at Yavneh College

Aims

- 1) To build on Year 6 Science with innovative, challenging and exciting work, taking into account those topics which have been covered by the end of Year 6 and those which have not.
- 2) To ensure that scientific enquiry is integrated with and taught alongside knowledge and understanding in a range of contexts.
- 3) To identify the key scientific areas that underpin science at KS3 and that all pupils attain a level 5, with the majority of pupils attaining level 6 and the higher achievers level 7.
- 4) The challenge pupil's thinking and misconceptions and give them new perspectives from which to view the evidence.
- 5) To inspire and motivate our pupils with a passion for science!

Teaching

During Key Stage 3, pupils will have a single science teacher for the entirety of the year group they are currently in. This teacher will cover all three of the individual disciplines of science, Biology, Chemistry and Physics.

Science is allocated three lessons of one hour duration each week during Key Stage 3. Practical experiments and other interactive teaching methods are a large part of the curriculum and pupils get the opportunity to get 'hands-on' with the subject. Homework is set three times over a two week cycle and is expected to be of length 30 minutes during Year 7, and increasing to 40 minutes per homework in Years 8 and 9.

Assessment

Pupils are regularly assessed in a written format at the end of each topic covered. This provides us with important data on pupil attainment. This is not the only method of checking progress however, AfL (Assessment for Learning) is used extensively in science.

- Through oral/written starters
- Through challenging question and answer sections of the lesson designed to push the pupils to think outside of their comfort zone
- Through appropriate classwork which tests pupils' understanding, as well as providing time to practice fundamental skills
- Plenaries are used to check on learning throughout the lesson and to consolidate on skills that have been learnt and practiced during practical experiments
- Homework is marked according to AfL principles, pupils are given a written comment with suggestions of improvement.

- Peer assessment is also used frequently in order to start the pupils thinking about what makes a 'good' answer

Content

During Year 7 the following topics are covered:

Winter Term	Spring Term	Summer Term
<ul style="list-style-type: none"> • Cells • Reproduction • Particles • Energy 	<ul style="list-style-type: none"> • Elements • Forces • Differences • Electricity and Magnetism 	<ul style="list-style-type: none"> • Classification • Acid Reactions • Chemical Reactions • Earth and Space

During Year 8 the following topics are covered:

Winter Term	Spring Term	Summer Term
<ul style="list-style-type: none"> • Microbes • Heating and Cooling • Periodic Table • Using Elements 	<ul style="list-style-type: none"> • Light • Sound • Life Support • Metal Reactions 	<ul style="list-style-type: none"> • Shaping Life • Moving Around • Rocks • People and Environment

During Year 9 the following topics are covered:

Winter Term	Spring Term	Summer Term
<ul style="list-style-type: none"> • Energy and Electricity • Inheritance and Selection • Fit and Healthy • Reactions of Metals and Compounds • Patterns of Reactivity 	<ul style="list-style-type: none"> • Speed • Environmental Chemistry • Using Chemistry • Key Stage 3 Revision Programme 	<ul style="list-style-type: none"> • Start GCSE preparation work