

Dear Parents/ carers,

At the end of Year 9 your child will have completed the curriculum requirements for KS3 Science. Over this three year period your child has been taught key scientific ideas through themed topics, designed to provide relevant and engaging experiences of Science. This approach has been successful in helping us to enthuse pupils and maintain high standards of achievement.

As your child approaches Key Stage 4 and GCSE Science courses it will be necessary to sit external exams. At the end of Year 9 we begin the transition into this form of assessment by using an end of Key Stage 3 test. **This year the end of Key Stage 3 Science test is scheduled for the week commencing the 2nd June.** The results of this test alongside teacher assessments over the year will provide us with the information we need to provide an end of Key Stage 3 result for your child.

The end of KS3 Science test will cover many aspects of Science taught to students through years 7, 8 and 9 and will last for 1 hour. In the near future we will be providing revision booklets for pupils and giving advice in class on how to prepare for exams.

You will want to help your child prepare for these tests and their future exams in Science. As such I have included in this pamphlet;

- Information about the key ideas studied in Key Stage 3
- Useful revision websites
- Links to animations and videos to help students recap their learning
- Suggestions for activities that might be useful revision tools

With your support, early revision done in short chunks will help our students to achieve their very best. Revision is a skill that is developed over time, we expect some strategies will work and others will not. The range of resources suggested on the following pages may provide some useful (and fun) starting points as your child develops their preferred revision strategies.

If you have any further queries, please do not hesitate to get in touch,

Yours Sincerely

Mrs R Adams

KS3 Science Leader

Howden School

SCIENCE THEMES TO REVISE

CELLS

This key idea covers cells, tissues, organs and organ systems as well as how we can stay fit and healthy.

<http://cleo.skool.co.uk/keystage3.aspx?id=63>

This website has interactive animations and quizzes to help you check your learning.

<http://www.bbc.co.uk/bitesize/ks3/science/>

This website has clear revision notes, quizzes and animations.



Suggested Activities

- How about drawing animal and plant cells in colour? If you make all the cell parts bright and colourful you may find it easier to remember them!
- There are lots of special cells in your body- Can you make up cartoon story about what happens in your body including the adventures of some special types of cell?
- You could make a mind map of all the organ systems, (including sketches) and include details of their jobs and key parts. You might even be able to see how some of these systems work together.

INTERDEPENDENCE AND ADAPTATION

This key idea covers habitats, plants, photosynthesis and impact on food chains and webs.

http://www.bbc.co.uk/bitesize/ks3/science/organisms_behaviour_health/food_chains/revision/1/

This website has excellent coverage of all the key ideas covered.

http://www.youtube.com/watch?v=C1_uez5WX1o

The photosynthesis song! (Remember to change the word cellulose to glucose when you sing along!)



Suggested activities

- Try the food webs game on BBC bitesize- a fun way to recap key ideas
- Look for examples of different habitats in the area that you live. Think about how the animals and plants that live there are adapted to survive.
- Think of your favourite animal. Research- Where does it usually live in the wild? What does it eat? How is adapted for survival?

FORCES

This key idea covers the main types of forces and how they interact. Pupils need to recognise and draw force diagrams and describe movement when forces are balanced and unbalanced.

<http://www.docbrown.info/ks3physics/ks3physics.htm> some multiple choice quizzes and revision materials



http://www.bbc.co.uk/learningzone/clips/topics/secondary/science/phys_forces_contact_and_non_contact.shtml Lots of videos showing experiments and real life forces in action.

http://www.bbc.co.uk/bitesize/ks3/science/energy_electricity_forces/forces/activity/ a clear video/animation of the main points on forces.

Suggested activities

- List as many forces as you can and try to produce a mind map of where we use these forces.
- Write a forces quiz for one of your friends. Test them on the school bus, at home, at school, at the cinema?!
- Next time you play a sport think about the forces in action. What forces are in action in a rugby tackle or when you run the 100m sprint? How do Olympic athletes try to get forces to help them?
- Think about what your day would be like without any forces, can you remember your year 7 homework- a day without friction?

ENERGY

This idea covers the main energy types and how they can be transferred from one form to another. Remember, energy cannot be created or destroyed!

https://www.cgpbooks.co.uk/interactive_ks3_science_page1 A sample page from a revision workbook- colourful and clear information on the main energy types needed.

<http://www.ntscience.co.uk/science-mindmaps/> Mind map starting points.

Suggested activities

- Use the second energy website to help you build your own energy mind map. Try to add connections between ideas.
- Think of a clever way of remembering the main energy types. Can you come up with a rhyme or story that uses the first letter of each energy type? This could help you to remember them.
- Look around your house and garden for energy transfers. What energy transfers happen when you turn on the TV? Or what about when you ride your bike?



PARTICLES

This key idea covers the main areas of chemistry, what are materials made out of? What happens in chemical reactions and how do we use these reactions.

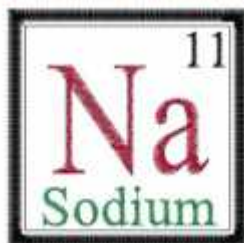
http://www.bbc.co.uk/bitesize/ks3/science/chemical_material_behaviour/ This menu links to all the main ideas in this topic. Each has a great interactive activity as well as written notes.

<http://www.docbrown.info/ks3intsciquiz/ChemicalMaterialBehaviourQmc.htm>

Interactive KS3 chemistry quizzes.

http://www.bbc.co.uk/search/learning/?q=chemical%20reactions&search_form=in-page-search-form

Do I know
any jokes
about Sodium?



Some great video clips about everyday chemical reactions.

Suggested activities

- Draw the particles in solids, liquids and gases on post it notes and stick them somewhere you will see them every day.
- Make models of elements and compounds next time you eat some smarties....or just buy yourself some as a reward for your hard work!
- Use the periodic table in your planner to test yourself on the symbols for the first 20 elements. Remember they all start with a capital letter!

HOW SCIENCE WORKS

We have worked very hard to build skills in planning, conducting, concluding and evaluating practical work in Science.

http://www.bbc.co.uk/learningzone/clips/topics/secondary/science/how_science_works.shtml

Good videos of real life experiments

http://www.youtube.com/watch?v=hwU3YL_SD70 The variables song!

Suggested activities

- Watch the Top Gear “star in a reasonably priced car”. Is this competition a fair test? What are the main variables? Think about how the experiment could be done better!
- Look through your school book for results from experiments. Can you describe patterns in your results? Even better, can you explain your findings?

**SCIENTIST
IN TRAINING**

