

Subject	Year	Term
GCSE Science	9	1
Topic		
B1 – Cell Biology		
Content (Intent)		
<b>Prior Learning (Topic)</b> 7B1 – The Basics of Life; 8B2 – DNA & Inheritance		
<ol style="list-style-type: none"> <li>1. Looking at cells (light and electron microscopes)</li> <li>2. Eukaryotic Cells (Plants and animals)</li> <li>3. Biology Required Practical No. 1 – Microscopy</li> <li>4. Prokaryotic cells and estimating</li> <li>5. Cell differentiation</li> <li>6. 6a Stem cells 6.b Therapeutic cloning</li> <li>7. Mitosis and the cell cycle</li> <li>8. Substances in and out of cells diffusion</li> <li>9. Surface Area to Volume Ratio</li> <li>10. Solving the surface area to volume ratio problem</li> <li>11. Substances in and out of cells - osmosis 1</li> <li>12. Substances in and out of cells - osmosis 2</li> </ol>		
<b>Future Learning (Topic)</b> B2a – exchange surfaces; Year 11 – cell division; Key stage 5 – Biology		
How will knowledge and skills be taught? (Implementation)	How will your understanding be assessed & recorded (Impact)	
<p><b>Demos</b> Diffusion of air freshener across classroom; effect of temperature on diffusion of potassium permanganate</p> <p><b>Practical work</b> Required Prac 1 – microscopy; Required Prac 2 – osmosis in plant tissue; Diffusion of acid into indicator cubes.</p> <p><b>Written</b> Notes and completed worksheets in exercise books, research tasks using fact cards.</p>	<p>- 2 x standard homeworks (Level given. Written feedback. Response expected.) -1 x end of topic test (Level given. Verbal feedback to class and individuals.)</p>	
How can parents help at home?		
<p>Look at the topic specific resources on the VLE. Look at the CGP GCSE Revision guide. Use appropriate Youtube channels: cognito, primrosekitten, khan academy, freesciencelessons. Take an interest! Ask your children what they have learnt and be curious about their learning.</p>		

## Helpful further reading/discussion

### Reading

*Horrible Sciences*  
[newscientist.com](http://newscientist.com)  
[catalyst-magazine.org](http://catalyst-magazine.org)

### Vocabulary Lists

*Diffusion, osmosis, active transport, surface area, volume, differentiation, stem cells, mitosis, chromosomes.*

### Careers Links

*Medicine (doctor/nurse)*  
*Scientific Research*