

# SUBJECT NAME COMPUTER SCIENCE



**ALDER**  
Community High School

YEAR GROUP 11

## Topic 2.1 Algorithms

### Composites

- Define Abstraction and decomposition
- Ability to create and interpret algorithms, flowcharts and pseudocode
- Able to describe searching algorithms (Linear and Binary)
- Evaluate searching algorithms
- Able to describe sorting algorithms (merge, insertion and bubble)
- Evaluate sorting algorithms
- 

### Key Vocabulary

- Element
- Flowchart
- Pseudocode
- Abstraction
- decomposition
- Algorithm
- Syntax error
- Logic error

### Assessment

AFL used throughout lessons in the form of whiteboards and code calling.  
Mid-point MCQ test to inform planning and reteach of misconceptions also end of topic assessment.

### ILS

Revision Knowledge drop, flash cards, condense it, mind map, mnemonics

### How to help at home

Use ILS strategies to ask questions on what they have studied in lesson.  
Check retrieval of the knowledge using the knowledge organisers.  
Ensure revision is completed on the retrieval grids.

Use the web links to support with wider understanding

### Wider reading

[KS3 Computer Science - BBC Bitesize](#)

### SMSC

### Careers Links

Network manager, Software developer, technician

Autumn Term 1



| Topic – 2.5 Programming languages and Integrated Development Environments                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                     |                                                                                                                                                                                                         |                                                                                           |                                                                                                                                                                                                                                                                                                    |                                                                                 |             |                                                                             |
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| Autumn 2                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <table><tr><td><b>Composites</b><ul style="list-style-type: none"><li>• Know characteristics and purpose of high- and low-level programming languages</li><li>• Be able to explain the purpose of translators</li><li>• Be able to list the characteristics of a compiler and an interpreter</li><li>• Explain the differences between compiler and interpreter</li><li>• Be able to explain features of an IDE (debugger, diagnostics, run-time environment, translators)</li></ul></td><td><b>Key Vocabulary</b><ul style="list-style-type: none"><li>• Compiler</li><li>• Interpreter</li><li>• Machine language</li><li>• IDE</li><li>• Debugger</li><li>• Editor</li><li>• Run time environment</li><li>• Syntax</li><li>• Logic</li></ul></td></tr><tr><td><b>Assessment</b><p>AFL used throughout lessons in the form of whiteboards and code calling.<br/>Mid-point MCQ test to inform planning and reteach of misconceptions also end of topic assessment.</p></td><td><b>Homework /ILS</b><p>Knowledge drop, flash cards, condense it, mind map, mnemonics</p></td></tr><tr><td><b>How to help at home</b><p>Use ILS strategies to ask questions on what they have studied in lesson.<br/>Check retrieval of the knowledge using the knowledge organisers.<br/>Ensure revision is completed on the retrieval grids.<br/>Use the web links to support with wider understanding</p></td><td><b>Wider reading</b><p><a href="#">KS3 Computer Science - BBC Bitesize</a></p></td></tr><tr><td><b>SMSC</b></td><td><b>Careers Links</b><p>Network manager, Software developer, technician</p></td></tr></table> | <b>Composites</b> <ul style="list-style-type: none"><li>• Know characteristics and purpose of high- and low-level programming languages</li><li>• Be able to explain the purpose of translators</li><li>• Be able to list the characteristics of a compiler and an interpreter</li><li>• Explain the differences between compiler and interpreter</li><li>• Be able to explain features of an IDE (debugger, diagnostics, run-time environment, translators)</li></ul> | <b>Key Vocabulary</b> <ul style="list-style-type: none"><li>• Compiler</li><li>• Interpreter</li><li>• Machine language</li><li>• IDE</li><li>• Debugger</li><li>• Editor</li><li>• Run time environment</li><li>• Syntax</li><li>• Logic</li></ul> | <b>Assessment</b> <p>AFL used throughout lessons in the form of whiteboards and code calling.<br/>Mid-point MCQ test to inform planning and reteach of misconceptions also end of topic assessment.</p> | <b>Homework /ILS</b> <p>Knowledge drop, flash cards, condense it, mind map, mnemonics</p> | <b>How to help at home</b> <p>Use ILS strategies to ask questions on what they have studied in lesson.<br/>Check retrieval of the knowledge using the knowledge organisers.<br/>Ensure revision is completed on the retrieval grids.<br/>Use the web links to support with wider understanding</p> | <b>Wider reading</b> <p><a href="#">KS3 Computer Science - BBC Bitesize</a></p> | <b>SMSC</b> | <b>Careers Links</b> <p>Network manager, Software developer, technician</p> |
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Our curriculum overviews are currently being revised to align with recent updates to teaching sequences and assessment planning. Once published, they will outline the key composite knowledge in each topic subject. We expect to share these with parents shortly and thank you for your patience during this update.