

## Creating Coding

Key:

|                       |                       |                    |                      |
|-----------------------|-----------------------|--------------------|----------------------|
| <i>i</i> – introduced | <i>r</i> – reinforced | used independently | Continue development |
|-----------------------|-----------------------|--------------------|----------------------|

| Creating - Coding   | ES1 | Stage 1 |   | Stage 2 |   | Stage 3 |   |
|---|-----|---------|---|---------|---|---------|---|
| <b>What is Coding?</b>  | K   | 1       | 2 | 3       | 4 | 5       | 6 |
| Introduction to coding – what is it?  | i   |         |   |         |   |         |   |
| Simple examples of coding   |     |         | i |         |   |         |   |
| Examples - looking at script (page source code)   |     |         |   | i       |   |         |   |
|   |     |         |   |         |   |         |   |
| <b>SYMBOL BASED CODING</b>  |     |         |   |         |   |         |   |
| <b>Understanding symbol commands</b>  | K   | 1       | 2 | 3       | 4 | 5       | 6 |
| Recognising Fwd, bwd, turn left, turn right   | i   |         |   |         |   |         |   |
|   |     |         |   |         |   |         |   |
| <b>Create Coding – Symbol based</b>   | K   | 1       | 2 | 3       | 4 | 5       | 6 |
| Planning  | i   |         |   |         |   |         |   |
| Program robot to move - fwd,/bwd, left/right  | i   |         |   |         |   |         |   |
| Developing a sequence   | i   |         |   |         |   |         |   |
| Running a sequence  | i   |         |   |         |   |         |   |
| Modify coding - Problem solving   | i   |         |   |         |   |         |   |
| <b>Symbol Based Applications</b>  | K   | 1       | 2 | 3       | 4 | 5       | 6 |
| <ul style="list-style-type: none"> <li><b>iPad apps</b><br/>(BeeBot/CodeAPillar/LightBox/ALEX/Kodable)</li> </ul> | i   |         |   |         |   |         |   |
| <ul style="list-style-type: none"> <li><b>online software</b></li> </ul>  | i   |         |   |         |   |         |   |
| <ul style="list-style-type: none"> <li><b>BeeBots</b></li> </ul>  | i   |         |   |         |   |         |   |
| <ul style="list-style-type: none"> <li><b>Edisons</b></li> </ul>  |     |         |   | i       | r |         |   |
| <ul style="list-style-type: none"> <li><b>Code-A-Pillar</b></li> </ul>  | i   |         |   |         |   |         |   |
| <ul style="list-style-type: none"> <li><b>Ozobots</b></li> </ul>  |     | i       | r |         |   |         |   |
| <ul style="list-style-type: none"> <li><b>MakeyMakey</b></li> </ul>   |     |         |   | i       | r |         |   |
| <ul style="list-style-type: none"> <li><b>MicroBits</b></li> </ul>  |     |         |   |         |   | i       | r |
|   |     |         |   |         |   |         |   |
| <b>BLOCK BASED CODING</b>   | K   | 1       | 2 | 3       | 4 | 5       | 6 |
| Planning (may be hands on for juniors)  | i   |         |   |         |   |         |   |
| Developing a sequence   | i   |         |   |         |   |         |   |
| Using code blocks   | i   |         |   |         |   |         |   |
| Adding an “if” variation  |     | i       | r |         |   |         |   |
| Adding “if/else”  |     |         | i | r       |   |         |   |
| Include a repeat block  |     | i       | r |         |   |         |   |
| Include a repeat “times” block  |     | i       | r |         |   |         |   |
| Functions   | i   | r       | r |         |   |         |   |
| Parameters  | i   | r       | r |         |   |         |   |
| Create actions – simple   | i   | r       |   |         |   |         |   |
| Create actions – moderate   |     |         | i | r       |   |         |   |
| Create actions – advanced   |     |         |   |         | i | r       |   |
| <b>Block Based Applications</b>   | K   | 1       | 2 | 3       | 4 | 5       | 6 |
| <ul style="list-style-type: none"> <li><b>iPad apps</b> (Tynker; Daisy; Hopscotch)</li> </ul>                     | i   |         |   |         |   |         |   |
| <ul style="list-style-type: none"> <li><b>web based</b> (Scratch; Hour of Code/code.org)</li> </ul>               | i   |         |   |         |   |         |   |

\*See also Robotics

