Lights and drums: worksheet

# Step 1 Encode

Use the coding scheme to encode your message.

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| --- | --- |
| **Message**:  **babbage**  **Coding scheme**:  Morse code | Write your **encoded message** here: |

Step 2 Practise

Practise using the equipment for transmitting your message.

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| **Equipment**:  torch | Write **what others will need to know** to receive your message: |

Step 3 Transmit

First, explain to others what they need to know to receive your message. Start the transmission when everyone is ready.

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| **What worked:** | **What we hadn’t planned for:** |

Steps 4 and 5 Receive-Decode

Write down each message that you receive and decode it.

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| --- | --- |
| **Coding scheme**:  **Decoded message**: | Write the **message that you received** here: |
| **Coding scheme**:  **Decoded message**: | Write the **message that you received** here: |
| **Coding scheme**:  **Decoded message**: | Write the **message that you received** here: |
| **Coding scheme**:  **Decoded message**: | Write the **message that you received** here: |

Step 6 Reflect

Discuss these questions within your group and write down a short answer for each one.

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| **Questions** | **Your answers** |
| The coding scheme that you used associates each letter with a sequence of symbols.  What is the **length** (number of letters) of your **original message**?  What is the **length** (number of symbols) of your **encoded message**? |  |
| What can you use to represent 0s and 1s in the real world?  (Answer in a single sentence) |  |
| Why have people invented so many different coding schemes?  (Answer in a single sentence) |  |

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