

# SUBJECT: BTEC Tech Award Digital IT

## UNIT: Component 2: Learning Outcome B



### Data processing methods

#### Data manipulation methods:

- Importing data, to include from other files, the internet
- Formulae, to include add, divide, subtract, multiply
- Functions, to include SUM, AVERAGE, MIN, MAX
- Sorting, to include sorting multiple columns and values.

#### Advanced manipulation methods:

- Decision-making functions, to include IF, WHATIF, SUMIF
- Lookup functions, to include VLOOKUP, HLOOKUP
- Count functions, to include COUNTBLANK, COUNTIF, COUNTA
- Logical operators, to include NOT, AND, OR
- Outline, to include group, ungroup
- Subtotal to include AVERAGE, SUM, MIN, MAX, COUNT, COUNTA
- Filtering, to include greater than, less than, equals, contains, begins with, ends with,
- Text to columns, to include delimited, fixed width.

#### Other processing methods:

- Absolute and relative cell referencing, to include use of dollar sign (\$) and
- Named cells
- Macros, to include for automatic navigation, change graph options, change data ranges
- Multiple and linking worksheets, to include for dashboard and raw data
- Cell comments
- Alternative views, to include hiding/unhiding cells, freezing planes
- Conditional formatting, to include data bars, colour scales, icon sets.

### Producing a dashboard

#### Showing data summaries from the data set:

- Totals
- Counts
- Averages
- Percentages
- Sales breakdowns
- Departmental/section breakdown.

#### Appropriate presentation methods:

- Tables
- Pivot tables
- Sparklines
- Graphs/charts, including dynamic charts/graphs
- Form controls, to include button, combo box, check box, spin button (spinner),
- Dropdown menu, option button.

#### Using appropriate presentation features:

- Font size, style and colour
- Merge cells
- Text wrap
- Cell borders and shading
- Graphics
- Axis labels
- Titles, including overall and section titles
- Conditional formatting.

### Real world dashboard examples:

#### Business & Finance

- Financial Dashboard – Displays cash flow, expenses, profits, and other financial metrics for CFOs and accountants.

#### Entertainment

- Event Management Dashboard – Monitors ticket sales, attendee engagement, and logistics for concerts and festivals.