Describing images 3: Maps, maths and tables

Guidance from UKAAF
Why format quality matters

"When organisations send me information in formats that I can read myself it allows me to be independent, feel informed and appreciated - just like every other customer."
End-user

"Producing consistently high quality accessible formats helps us to maintain our reputation, to gain new customers and to retain existing ones."
Transcription agency

"We are committed to ensuring that our customers with print disabilities receive the same information, of the same quality, as everyone else."
Service provider
Who is this guidance for?

This guidance from the UK Association for Accessible Formats (UKAAF) is primarily aimed at those within education or the workplace who are providing images as part of course materials, their business or presentations. It will be particularly useful in helping to create effective descriptions for blind and partially sighted users. It should be used if materials being provided contain images, or have been adapted with the images removed.

The 'Describing images' series

This guidance is part of the 'Describing images' series. The series consists of five guidance documents. This third document (G015) explains in more detail how to describe different types of maps, maths and tables. If help is needed with describing a different type of image then the relevant guidance document should be referred to:

1. General principles (G013)
2. Charts and graphs (G014)
3. Maps, maths and tables (G015)
4. Photographs, illustrations and works of art (G016)
5. Accessible images (G017)

This guidance documents includes information on:

- Which images to describe
- How much detail to include
- How to structure a description
- Templates to help you structure your own image descriptions
- How to describe different types of maps, maths and tables
These guidelines are appropriate for image descriptions in the following formats:

- Print
- Electronic files such as Microsoft Word documents or PDF
- Audio files (such as DAISY)
- Web pages
- E-books
- Presentations
- Accessible images

These guidelines have been updated in collaboration with the Open University (OU) and are an update of the 'Guidelines for describing visual teaching material' (2004). Additional content has been produced by Claire Jones, Assistant Development Officer, (RNIB Centre for Accessible Information) and Emir Forken, Programme Manager, (OU).

**Disclaimer**

This guidance may include references to external websites, services or products for which UKAAF accepts no responsibility. This information is given without any representation or endorsement of those websites, services or products.
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1 Acknowledgements

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Many thanks to the team in RNIB’s Centre for Accessible Information, particularly Sarah Home for her support and guidance and Caroline Walker, Alan Waller and Martin Fuller for taking the time to source images for use in this guide. Also Mary Steiner and Andrew Homer for their comments and Sarah Morley Wilkins for overall support.

Thanks also to Alan Waller who has kindly allowed some of his paintings and illustrations to be used in these guidelines.

Thanks also to Paul R. Lynch (Visual Impairment Centre for Teaching and Research (VICTAR), University of Birmingham) for his help and support and Philip Jeffs (RNIB) for helping to source images from the RNIB photographic archives.

2 Introduction

By obtaining these guidelines you are demonstrating your commitment to helping people with a print disability to read your materials if they find reading standard print materials difficult or impossible.

This guidance concentrates specifically on materials suitable for blind and partially sighted people - such as large print, audio,
braille and electronic file formats. However, others with a print disability, for example with dyslexia or motor-difficulties, may also find such materials necessary.

The provision of accessible information is a key requirement of the Equality Act which service providers must follow, but good customer service and business practice includes communicating with your customers and staff in ways which meet their reading needs. By providing accessible format materials, you not only demonstrate your commitment to equality and inclusion, but also increase your reach and customer base. It therefore makes good business sense.

This guidance will help you and your organisation to incorporate good practice into your business and provide good quality accessible format materials in a timely and appropriate way.

3 About UKAAF

The UK Association for Accessible Formats (UKAAF) is the industry association whose mission is to set standards for accessible formats that meet end-user needs through:

- development, delivery and promotion of codes, standards, and best practice for the production and provision of accessible formats
- consultation and collaboration with transcribers, service providers and users of accessible formats.

Members of UKAAF include organisations and individuals with an interest in the provision of quality accessible formats, such as service providers, transcribers, educators, researchers, print services, publishers, and end-users.
Through its leadership and representation, standards-setting, and by fostering a spirit of cooperation between members, UKAAF ensures that the needs and requirements of end-users are understood by service providers and transcribers to help improve the quality of accessible formats.

Please see the section on "Where to get further help" towards the end of this document for more information about the benefits of being a member of UKAAF.

4 Definition of print disability

A print-disabled person is anyone for whom a visual, cognitive, or physical disability hinders the ability to read print. This includes all visual impairments, dyslexia, and any physical disabilities that prevent the handling of a physical copy of a print publication. Source: Copyright Licensing Agency Print Disability Licensing Scheme, Guidelines for Licensees 2010.

5 Describing maps, maths and tables

These examples of images are found frequently within business and education. For each type of image there is an introduction that explains the purpose of the image. The examples presented are images used from different contexts and levels of complexity.

The introduction to each section gives guidance specific to those types of image and explains the purpose of the images. These can be used to help describe the purpose of the image to a blind or partially sighted person as well as enabling a person who is writing a description to understand the purpose behind the images.

A number of images have originated from courses within the Open University. Some of the accompanying text has been included so
that you can see how much information has been repeated or expanded upon within the description.

There are templates available to use as a guide. Within the templates suggested words or prompts have been included within curly brackets {}. Delete the curly brackets and use any parts that are relevant and edit and adapt parts that are not needed as appropriate.

The templates have been developed in order to help structure a description effectively. Incorporated within the template is a brief overview of the appearance of the image. If it is felt that the appearance of an Image is not important, then only include parts that present the data.

Refer to the document 'Describing images 1: General principles' (G013) for general guidelines for describing images.

6 Describing maps

When describing maps, there are some initial points to consider:

- What is the purpose of the map? Does the user need to know about the layout of the features and their positions; or do they need to read the information or data the map provides?
- In most instances, start by describing what the map shows and the main area it covers, if not already stated in the caption.

Avoid unnecessary detail, but if relevant:

- describe the scale and list the key items
- state the orientation and use 'north, east, south and west' not 'up, down, left and right'
- describe the level of detail shown on the map
- list the countries or regions shown
• describe rivers, road and railways

• state the information that is needed, for example; the movement of troops, the differences in rainfall and so on.

• if describing a floor plan be aware of the purpose, for example is it to show the features of a building or to show the layout to aid navigation? Therefore state clearly whether something is on the left or right on the page or in the building.

If it is a long description, give information in structured chunks. For example, if there are four countries, state 'Describing the countries from west to east and north to south; Aaaa is in the north west, Bbbb is directly to the east and Cccc is to the east and slightly to the south ...' then 'Aaaa has four major cities ....' The order and structure depends on the context, but remember that users accessing audio descriptions cannot skim read and have to listen to the whole description to find out whether the information they want is included.

Some of these examples also include a key which describes any abbreviations used in the map. If the text within a key cannot be accessed by access technology, then its contents will need to be described and may work effectively presented in a table.

6.1 Map template

[Start of description]

The map is titled and shows {the area / region of / continent / ...}. The map is centred on {the UK / Europe / Australia / the South Pole / the North Pole / ...}. {North / South / East / West} is at the top. {The scale is {} } (Omit if scale not given)
The main features are {}.

Starting with {} in the {north-west / other suitable starting point give layout of the map in a structured order}.

{Include any additional information which describes what the map is showing and any additional information needed, for example answering educational assessments.}

[End of description]

6.2 Map example: World map of volcanoes

![World map of volcanoes](image)

Figure 1: World map of volcanoes
Describing images 3: Maps, maths and tables

Figure 2: Key to world map of volcanoes

[Start of description]

This is a map of the volcanoes on the surface of the earth. On the left of the image is North and South America, in the centre is Europe and Africa, and to the right is Asia and Australasia.

Across the map minor volcanoes are marked by small dots and major volcanoes marked by triangles. The map shows that there are more minor volcanoes than major volcanoes, though the exact number of volcanoes and their locations cannot be determined as this is a generalised map.

The map shows that there is a concentration of small volcanoes along West South American coastline; centre of the North Atlantic, a cluster within the central Atlantic between South America and Africa; a cluster from Western Asia, spreading down the east African Coast; a cluster leading from the Eastern Asia, down into
the Pacific Ocean, then along the Southern Indonesian coastline curving across Northern Australasian coastline.

There are fewer major volcanoes. These are shown off the tip of the North American Coastline; two in the central Pacific; along the Southern Mexican coast and Northern Mexican coast and into the Caribbean, with one in South America. Two are marked in the North Atlantic between Greenland and Iceland and one in the Southern Atlantic. Two are marked in Europe; one in central Europe and one in the centre of the Mediterranean Sea. There is a small number along the East Asian coast and Indonesia, with one marked to the south of New Zealand.

**Key**

There is a key that accompanies this image. As well as showing the symbols of the volcanoes (minor volcanoes are marked by red dots and major volcanoes are marked by yellow triangles) it also lists the abbreviations marked on the map. It reads:

**Abbreviations:**
- AF: Africa
- AS: Asia
- AU: Australasia
- EU: Europe
- NA: North America
- SA: South America

[End of description]
6.3 Map example: Climate maps

Figure 3: Climate map – Europe
**Figure 4: Climate map - north and central Africa**

**Figure 5: Key for climate maps of Europe, north and central Africa**

- **Tropical equatorial:** hot and wet all year
- **Tropical monsoon:** hot with wet/dry seasons
- **Dry hot:** deserts with some rain
- **Dry hot:** deserts with little rain
- **Warm temperate mediterranean:** hot dry summers, mild wet winters
- **Cool temperate maritime:** rain all year and equable
- **Cool temperate continental:** warm summers and cold winters
- **Tundra:** short summers (often warm), long cold winters
- **Mountain:** tundra or arctic climates near the snow line
These two maps show the climate patterns across Europe, North and Central Africa. Each type of climate is represented by a coloured area on these maps and these colours along with what climate they represent are listed on a separate key. This information is presented within a table at the end of this description.

**Figure 3: Climate map – Europe**

This map of Europe is centred on the UK, showing Greenland in the far north and Western and Central Europe to the South and East.

**Figure 4: Climate map – north and central Africa**

This map is centred on North and Central Africa, with a small area of South America in the south-west and Israel and part of the Middle East to the north-east.

**Figure 5: Key for climate map of Europe, north and central Africa**

The key shows a list of colours and the type of climate they represent. The information is presented in a table along with which regions on the maps are affected by each climate.

<table>
<thead>
<tr>
<th>Regional colour</th>
<th>Climate</th>
<th>Region on map</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pink</td>
<td>Tropical Equatorial: hot and wet all year</td>
<td>Small strip of central Africa – just north of the Equator</td>
</tr>
<tr>
<td>Dark orange</td>
<td>Tropical monsoon: hot with wet/dry seasons</td>
<td>Large part of central Africa.</td>
</tr>
<tr>
<td>Color</td>
<td>Description</td>
<td>Example Area</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------------------------------------------------------------------------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>Orange</td>
<td>Dry hot: desserts with some rain</td>
<td>Strip of Northern Africa and Southern Europe – Russia</td>
</tr>
<tr>
<td>Yellow</td>
<td>Dry hot: desserts with little rain</td>
<td>North Africa crossing into Asia</td>
</tr>
<tr>
<td>Pale green</td>
<td>Warm temperate Mediterranean: hot dry summers, mild wet winters</td>
<td>Tip of North Africa and the Southern Europe – the coast of the Mediterranean sea</td>
</tr>
<tr>
<td>Dark green</td>
<td>Cool temperate maritime: rain all year and equable</td>
<td>Northern Europe, UK</td>
</tr>
<tr>
<td>Olive green</td>
<td>Cool temperate continental: warm summers and cold winters</td>
<td>Central Eastern Europe</td>
</tr>
<tr>
<td>Pale blue</td>
<td>Tundra: short summers (often warm), long cold winters</td>
<td>Northern Russia</td>
</tr>
<tr>
<td>Dark blue</td>
<td>Mountain: tundra or arctic climates near the snow line</td>
<td>Small area of central Europe.</td>
</tr>
</tbody>
</table>

[End of description]
6.4 Map example: Historic boundaries / land use

Figure 6: Map of Roman Empire, circa 150AD

[Start of description]

This map shows the extent of the Roman Empire circa 150 AD. The countries have been marked by abbreviated letters. These are referenced in the key within the image.

The map is centred on the Mediterranean Sea, showing Great Britain; Europe and North Africa. A north arrow is shown and the Roman Empire is marked in yellow and other lands as green. Individual country boundaries are not shown. The map is labelled with the names given to regions at that time: These are listed in the key as:

- B: Britain
- C: Cappadocia
- E: Egypt
- G: Gaul
- H: Hispania
- I: Italy

Gaul is now modern day France; Hispania is modern day Spain, Cappadocia is modern day Turkey. Egypt and Italy are as they are today. The Mediterranean and the Black Sea are also labelled.

The Roman Empire is showing as dominating Britain; Gaul, Hispania; Italy; Cappadocia; Northern Egypt and the North African Coastline. Other lands not part of the Roman Empire are Ireland, Scotland, Northern Europe and Russia, Asia and North Africa.

[End of description]
6.5 Map example: Weather map

Figure 7 shows a weather map detailing atmospheric pressure; wind strength and direction, temperature and weather fronts across the British Isles. Part of mainland Europe, (Northern France, Belgium, Netherlands and Norway) is also shown.

There are five isobars shown, all have their atmospheric pressure marked on them in millibars (mb). The centre of the weather system is over the North Sea between Britain and mainland Europe. This isobar is marked as 1028 mb. It is located centre right of the map and labelled ‘high’. The next isobar cuts across Northern Europe around the south of England, up the Irish Sea, across Northern England and Southern Scotland, across to Norway. This isobar is labelled 1024. The next isobar, labelled 1020 leads from the Atlantic Ocean, across Northern Ireland and
North West Scotland. The next isobar marked 1016 cuts across the Atlantic Ocean, and the last is further out into the Atlantic, marked 1012. The isobars are closest together across Ireland, the Irish Sea and Scotland.

A cold front is shown pointing towards the West and North coast of Ireland and the north-west coast of Scotland, indicating torrential rain fall.

Cloud coverage is shown as overcast across the North Sea, with broken cloud over northern Scotland. Scattered cloud across England and Wales with calm wind across the North Sea, England and Europe with stronger winds from Northern Scotland and Southern Ireland. The wind blows in an anti-clockwise direction.

Temperature is shown as 16 across Northern Scotland and the North Sea, 26 across England and Wales, 19 off the coast of Southern Ireland, 24 in the English Channel and 32 in Belgium.

[End of description]
6.6 Map example: Sikh temple floor plan

This is a plan view of a Sikh temple, showing the main rooms and features. The temple is rectangular in shape with the main entrance along the narrow side, shown at the top of the image. The rooms inside are also rectangular in shape with the largest being the Diwan Hall and Langar Hall.

Leading around the temple the layout and features are as follows: Immediately to the left and right of the entrance is a separate male and female shoe and washroom. There is a corridor which leads around the back of these rooms showing the entrance to the Diwan
Hall. The corridor leads past this hall to the Langar Hall and kitchen. There are also three unlabelled rooms.

Describing the plan room by room there are a number of features shown in the Diwan Hall. Inside the entrance, separate areas are labelled: 'male worshippers' is on the left of the image and 'female worshipers' on the right. Directly opposite the entrance to the Diwan Hall, at the back of the hall is the offerings box, and behind this the Holy Scripture. To the right of this on the image, the musicians' stage is marked and behind this there is a small rest room. There are no features marked in any other rooms.

[End of description]

6.7 Map example: Day centre floor plan

Figure 9: Day centre floor plan

[Start of description]
Figure 9 shows a day centre floor plan of the whole building layout. It comprises the entrance area; reception; meeting rooms along with other facilities.

The building shows a long rectangular shape, with the main entrance on the long side of the building. The largest of the rooms is the reception office; and rooms one, two and three.

Leading around the floor plan, the layout and features are as follows: the main entrance is shown at the bottom left of the image. Up from this is the reception area; with a reception window to the left and door to the reception office straight ahead. The main corridor leads to the right, up slightly and then continues to the right. The door to room three is straight off this area. Along the corridor the rooms on the right are equipment storage cupboard; an office; room four. Along the corridor to the left is room one; room two. The corridor then turns to the right. On the left of this section is the kitchen. On the right of this corridor are three separate toilets. At the end of this short corridor is the rear door; immediately outside to the left is another toilet.

Details to note are; steps are shown leading up to the main entrance. To the left of these is a ramp. Fire exits are located within the reception office; off room two and the rear door is also marked as a fire exit. Rooms one and two have a separation wall in between; this can be opened out to create one large room. The toilets are not shown as being designated to either men or women.

[End of description]

7 Describing maths and other symbolic notation

Most pure maths is recorded directly into audio by subject specialists who know how to read mathematical expressions and
pronounce symbol names. With the increased use of PDF and web versions, there is now more need for an interpreted version which can be read by a screen reader program.

A template for maths diagrams has not been provided as the subject matter can vary so greatly.

### 7.1 Tips for using maths when describing figures

As always, consider the context and use any terminology that has already been introduced in the text.

As a general rule, use numerals rather than words, as they don’t cause any difficulties for screen reader users and are more efficient for those who combine magnification and speech output. They are also more natural to type.

Screen reader programmes can cope with symbols '+', '-', '(', '[', '{', '=' and users can increase the level of announcement of punctuation to include ',', '.', '!' – generally any symbol on a standard keyboard can be used. Other symbols will need to be put into words, for example 'is not equal to' rather than '≠'.

Do not use the Word equation editor as equations created with this are not picked up by screen readers.

### 7.2 Accessible maths documents

There have been small scale solutions, where a few successful blind mathematicians have each evolved a different method for reading and writing mathematical expressions. There are solutions for children and face-to-face teaching, but not for printed maths at higher levels.

Many blind mathematicians learn to read Latex code, but this isn’t necessarily a good solution for students who are learning maths.
Work is ongoing in this field so we would suggest undertaking a web search which may turn up new options.

### 7.3 Subscripts and superscripts

Screen reader programmes may not be able to announce subscripts and superscripts, so these need to be described or interpreted.

If you are comfortable with maths, use a semantic description, that is, one which reflects the meaning of the expression. If you are describing someone else's material and are not sure about the meaning, use the presentational method which describes the appearance.

#### 7.3.1 Semantic description

In most cases it will be more effective to use appropriate mathematical terms for whatever the subscripts and superscripts represent. For example:

- Describe $3^7$ as '3 to the power of 7' or shorten it to '3 power 7'
- Describe X' as 'X prime'
- In education, it can be a good idea to write 'to the power of' in full for the first few expressions, and then use the abbreviations later in the course as the terminology becomes familiar. Screen reader users generally appreciate any abbreviations that save listening time. In a long description the time saved by using a short form could be significant.

#### 7.3.2 Presentational description

- describe $3^7$ as '3 superscript 7'
- describe X' as 'X superscript dash'
7.4 Chemical notation

7.4.1 CO2, N204...

Blind and visually impaired users will need to internalise the subscript convention so that they automatically use it correctly in assignments and reports.

Within education, it will be useful to reinforce the visual convention of subscripts in a note the first time that it occurs. If it is called a reader's note and styled as a description, it can be processed in the same way as any description. This can be repeated if there is a long interval between study sessions – before the next occurrence. For example 'Remember that subscript 2 is used to denote 2 oxygen atoms.'

Then you can use the visual subscript, but it won't matter if the screen reader says 'C O 2' or 'N 2 O 4', it's the way you would say it out loud to a sighted person.
7.5 Maths diagram example: Enlargement

Figure 10 shows a diagram demonstrating enlargement. The caption on the image states:

Title: Enlargement.

The two important details:
- The scale factor
- The centre of enlargement

1 to 2 is an enlargement of scale factor 2 and a centre of (1,6)
This diagram shows the enlargement of a triangle; displaying original triangle and its difference in size and position, or its scale factor and centre of enlargement. These are shown on a grid. The layout of the diagram will be described followed by what the diagram is showing.

The grid has its axes labelled. The x or horizontal axes is marked in units of one from 0 to 5. The y or vertical axes are marked in units of one from 0 to 6.

There are two triangles shown on the grid; a small green triangle labelled '1' is in the centre of the diagram and a larger orange triangle labelled '2' is towards the bottom right of the grid. Triangle 2 is an enlargement of triangle 1.

The bottom left corner of triangle one is labelled A, and the bottom right corner is labelled B. The bottom left corner of triangle two is labelled A1 and the bottom right is labelled B1.

The grid positions of both triangles are as follows:

Triangle one grid position (green triangle)
- Corner A grid reference: (1.5, 3.5)
- Corner B grid reference: (2.5, 4.5)
- Unlabelled corner: (1.5, 4.5)

Triangle two grid position (orange triangle)
- Corner A grid reference: (2.0, 1.0)
- Corner B grid reference: (4.0, 1.0)
- Unlabelled corner: (2.0, 3.0)

The centre of enlargement is shown. A dotted line is drawn connecting corners A and A1 of both triangles and second dotted
line connecting corners B and B1 of both triangles. These lines join to form a point at grid reference (1,6).

The triangles show a scale factor of 2 as:

$$A_1B_1 = 2 \times AB$$

The dotted line measured from the centre of enlargement to corner A is twice as long when taken from the centre of enlargement to corner A1; likewise the dotted line when measured from the centre of enlargement to corner B is twice as long as when taken to corner B1.

[End of description]

8 Describing tables

As with images, the type of description needed depends on the context of the table – how is the table going to be used and what does the end-user need to know from it?

As with charts and diagrams, blind or partially sighted users may be using magnification or screen reader software to read tables. Although assistive technology will make the contents of a table accessible, blind or partially sighted users cannot see the layout or spot trends in data in the way that a sighted reader can. Even if they have some sight, it may take them a long time to work out the structure of a complex table or extent of a large one, therefore a description may be necessary.

Most screen reader programs can read the information from tables at least row by row. Some can announce the number of rows and columns in a regular table, but some don’t, so an explanation of the general layout and column headings is useful. If a table is complex and a person needs to study it in detail, a good description of the layout will save screen reader users much time.
Some people with dyslexia may also find tables challenging, although others may find the regular layout easier to read than the same material in paragraph form.

Blind or partially sighted users who use assistive technology can read and navigate tables in documents, but as with printed documents, descriptive summaries of complex tables and patterns within data need to be provided.

8.1 How tables can be accessed

Tables appear in different contexts and formats so may be read:

- **on screen**: these can be accessed by a screen readers; so the table will need to be formatted to allow this, in which case a summary of any patterns will need to be given as it may not be apparent to a low vision aid user.

- **on the web**: a table summary can be added to web pages which describe any data or visually obvious patterns.

- **via audio**: the table needs to be read effectively; the structure may need to be described, and the table read row by row. Any patterns apparent will need to be read aloud.

- **via print**: a written description may need to be provided; include a summary of the structure if needed, and include the data along with any patterns it reveals. A separate document may need to be provided.

There are different considerations for how these are described depending on how they are read; as a table can be accessible in some formats and not others; this will help determine how much information needs to be described.

There are also different considerations for:

- those creating new tables and
If authoring a table, ensure its structure is simple and include a summary of its data. If writing a description for an existing table, announce the number of rows and columns, followed by reading across rows with column headings, or a short form repeated for each row.

8.2 Factors to take into account

- Is it a simple table or is there a summary of information already covered well in the text? If so, only a brief note may be needed.
- Does the table contain information not included in the accompanying text? If so, the data within the table needs to be given along with any patterns the data reveals.
- Is the table complex? For example the table may contain merged cells presenting lots of data; if so the table may need to be simplified.
- How is the table going to be used? How to use a table may be being taught, therefore the layout and formatting may need careful description as well as its content.

8.3 Guidelines for describing tables

When describing tables:

- Give the title or caption of the table.
- Include any page or reference numbers so that it can be cross-referenced.
- Only describe the structure of the table if this level of information is required.
• Complex tables with split columns and merged cells can be reformatted and presented simply. State if a table has been re-written and how it has been presented differently.

• Summarise the data the table provides and state if there are any patterns present. This will be the most important information within a table and it is crucial that this is described.

• If tables are presented in an electronic or print document, and are already accessible a full description may be repetitive, and will not be needed. Only the patterns the data reveals may need describing.

• Include the titles of the rows and columns and decide the best way to present the data; whether it should be read across the rows and down the columns or vice versa.

• If describing a complex table which has sub-divided columns, read each title and state how it has been grouped.

• Mention any blank cells in a table.

• Any footnotes within the table should be read directly after its related cell.

• If there are any important rows, for example a totals row; ensure the title of this is read.

• Add [end of table description].

### 8.4 Creating tables

If you are creating tables, there are some steps you can take which will help those who use assistive technology:

• Give a title for all tables.

• Do not split or merge cells.

• Consider splitting complex tables into several simpler ones.
Add a table summary.

Use column and row headings which have meaning and are concise.

Do not nest tables.

Avoid using colour alone to convey any meaning; for example simply using red lettering in a financial table to highlight negative values.

Consider using Microsoft Excel rather than Word for complex tables.

If you are using Microsoft Word, then bookmark table headings: If your table contains both column and row headings, put your cursor in the top left cell and go to Insert> Bookmark and create a bookmark called Title. If your table doesn't have any row headings, then put your cursor in row 1 and create a bookmark called 'ColumnTitle'. If your table only has row headings then put your cursor in the appropriate column and create a bookmark called 'RowTitle'. This will be picked up by some screen readers to identify headings.

9 Where to get further help

UKAAF assists businesses and organisations by advising how to meet the needs of customers and clients with print disabilities; providing guidance on how to source and provide quality accessible formats like large print, audio, braille, electronic file formats and Easy Read; and helping you to understand your responsibilities as a service provider.

Through our website and magazine, members will also gain access to:

- findings from public consultations and end-user research
research and innovation in accessible formats
information on suppliers of transcription services
guidance and advice on standards for accessible formats
opportunities to review and help to develop standards and guidance.

In addition to supporting service providers and transcribers, UKAAF also represents people with print disabilities. We believe that because format quality matters, end-users should have genuine input into the development of standards for accessible information. By collecting and sharing users' views with service providers and transcribers we can help them to deliver a quality service which meets users' needs.

UKAAF has a User Advisory Group (UAG) so we can include blind and partially sighted people and others with print disabilities in ongoing research and consultation on key accessible format issues.

There are many benefits of being a member of UKAAF, not least to demonstrate your commitment to quality accessible formats. For more information visit us at www.ukaaf.org.

10 Your feedback is welcome

We would welcome your views on this guidance, any suggestions for additions, or case studies of how this guidance has helped you. You might like to share your experience in an article in our magazine 'Format Matters'.

You can phone, email or write to us - our details are at the back, or use the feedback form on our website www.ukaaf.org.
If you find UKAAF's guidance valuable, please encourage others to join by visiting our website.
## Document reference information

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