



FOREST ECOSYSTEM

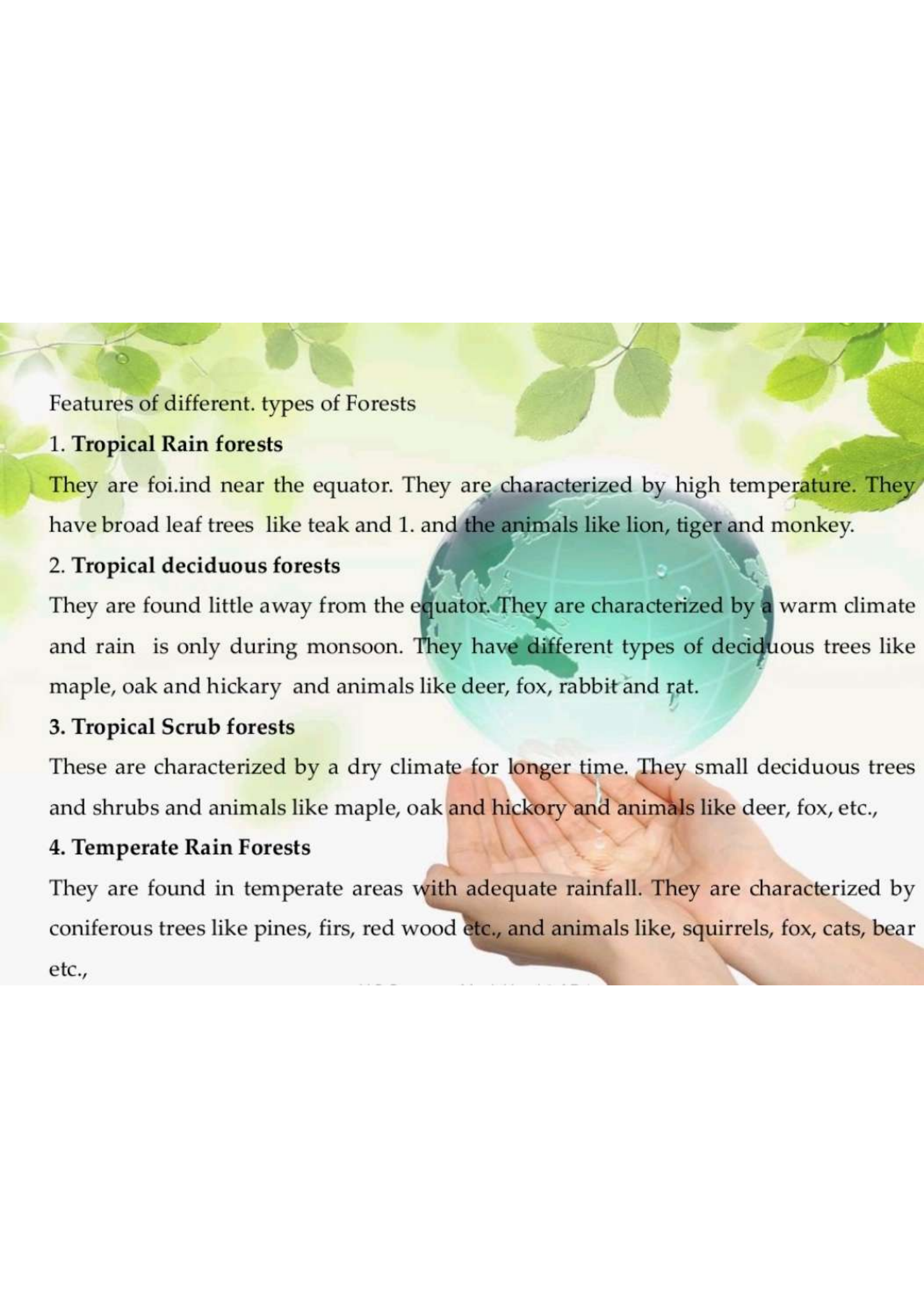
Introduction

A forest ecosystem is the one in which a tall and trees grow that support many animals and birds. The forest are found in undisturbed areas receiving moderate to hi rainfall. The forest occupies nearly 40% of the world's land area. In India it occupies only 19% of its total land area.

Types of forest ecosystem

Depending upon the climate conditions, forests can be classified into the following types.

1. Tropical Rain forests.
2. Tropical deciduous forests.
3. Tropical scrub forests.
4. Temperate rain forests.
5. Temperate deciduous forests.



Features of different. types of Forests

1. Tropical Rain forests

They are found near the equator. They are characterized by high temperature. They have broad leaf trees like teak and 1. and the animals like lion, tiger and monkey.

2. Tropical deciduous forests

They are found little away from the equator. They are characterized by a warm climate and rain is only during monsoon. They have different types of deciduous trees like maple, oak and hickory and animals like deer, fox, rabbit and rat.

3. Tropical Scrub forests

These are characterized by a dry climate for longer time. They small deciduous trees and shrubs and animals like maple, oak and hickory and animals like deer, fox, etc.,

4. Temperate Rain Forests

They are found in temperate areas with adequate rainfall. They are characterized by coniferous trees like pines, firs, red wood etc., and animals like, squirrels, fox, cats, bear etc.,

5. Temperate deciduous forests

They are found in areas with moderate temperatures. have major trees including broad leaf deciduous trees like oak, hickory and animals like deer, fox, bear, etc.,

Characteristics of forest ecosystems

1. Forests are characterized by warm temperature and adequate rainfall, which make the
2. generation of number of ponds, lakes etc.,
3. The forest maintains climate and rainfall.
4. The forest support many wild animals and protect biodiversity.
5. The soil is rich in organic matter and nutrients which support the growth of trees.
6. Since penetration of light is so poor, the conversion of organic matter into nutrients is very fast.



Structure and Function of forest ecosystem

I. Abiotic components

Climatic factors (temperature, light, rainfall) and minerals The abiotic components are inorganic and inorganic and organic substances found in the soil and atmosphere. In addition minerals, the occurrence of litter is characteristic features, majority of forests.

II. Biotic components

1. **Producers:** The plants absorb sunlight and produce photosynthesis
Trees, shrubs and ground vegetation..



2. Consumers

(a) Primary consumers (herbivores) :They directly depend on the plants for their food.

Example : Ants, flies, insects, mice, deer, squirrels.

b. Secondary consumers (primary carnivores):They directly depend on the herbivores for their food

Examples: Snakes, birds, fox.

c. Tertiary consumers :They depend on the primary carnivores for their food

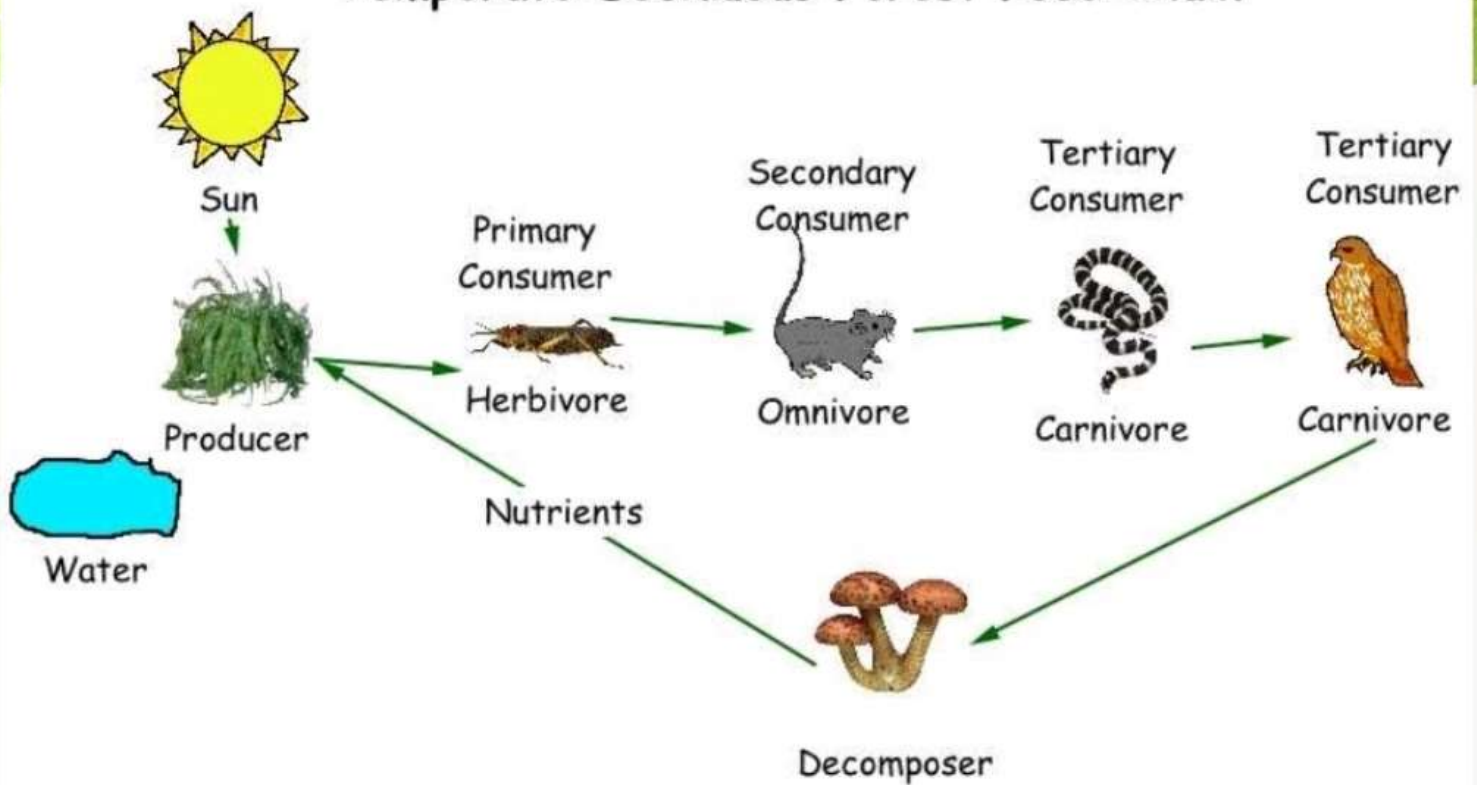
Examples : Animals, like tiger, lion, etc.,

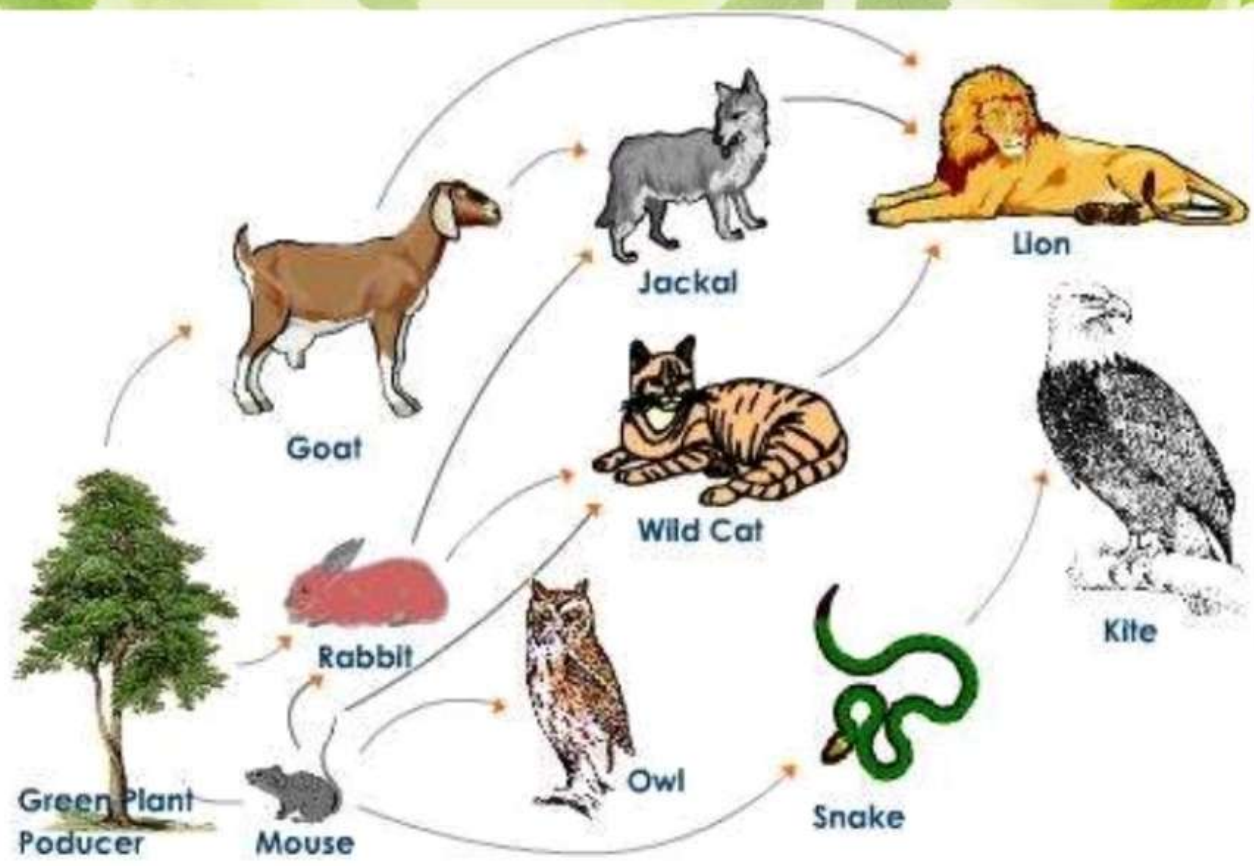
3. Decomposers

Bacteria and fungi.

They decompose the dead plant and animal matter., of decomposition in tropical and subtropical forests is in rapid than in the temperate forests.

Temperate Deciduous Forest Food Chain





Food Web in a Forest

Sample PDF

Created for testing PDFObject

This PDF is three pages long. Three long pages. Or three short pages if you're optimistic. Is it the same as saying "three long minutes", knowing that all minutes are the same duration, and one cannot possibly be longer than the other? If these pages are all the same size, can one possibly be longer than the other?

I digress. Here's some Latin. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer nec odio. Praesent libero. Sed cursus ante dapibus diam. Sed nisi. Nulla quis sem at nibh elementum imperdiet. Duis sagittis ipsum. Praesent mauris. Fusce nec tellus sed augue semper porta. Mauris massa. Vestibulum lacinia arcu eget nulla. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos himenaeos. Curabitur sodales ligula in libero.

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Design and build accessible PDF tables

Sample tables

Table 1

Column header (TH)	Column header (TH)	Column header (TH)
Row header (TH)	Data cell (TD)	Data cell (TD)
Row header(TH)	Data cell (TD)	Data cell (TD)

Table 2: example of footnotes referenced from within a table

Expenditure by function £ million		2009/10	2010/11 ¹
Policy functions	Financial	22.5	30.57
	Information ²	10.2	14.8
	Contingency	2.6	1.2
Remunerated functions	Agency services ³	44.7	35.91
	Payments	22.41	19.88
	Banking	22.90	44.23
	Other	12.69	10.32

(1) Provisional total as of publication date.

(2) Costs associated with on-going information programmes.

(3) From the management accounts, net of recoveries, including interest charges.

Table 3: "film credits" style layout

Main character	Daniel Radcliffe
Sidekick 1	Rupert Grint
Sidekick 2	Emma Watson
Lovable ogre	Robbie Coltrane
Professor	Maggie Smith
Headmaster	Richard Harris

Table 4: table 3 with column headers added

Role	Actor
Main character	Daniel Radcliffe
Sidekick 1	Rupert Grint
Sidekick 2	Emma Watson
Lovable ogre	Robbie Coltrane
Professor	Maggie Smith
Headmaster	Richard Harris

Table 5: year-end financial statement (£, thousands)

	2010	2009	2008
Non-current assets			
Property	345	445	222
Investment	567	654	423
Intangibles	423	123	453
Current assets			
Trade and other receivables	435	634	231
Cash and cash equivalents	524	123	482
Other	223	211	254

Table 6: a table with a more serious headings problem

Rainfall (inches)	Americas	Asia	Europe	Africa
2010				
Average	104	201	193	144
24 hour high	15	26	27	18
12 hour high	9	10	11	12
2009				
Average	133	244	155	166
24 hour high	27	28	29	20
12 hour high	11	12	13	16

Table 7: year-end statement, non-current assets (£, thousands)

Non-current assets	2010	2009	2008
Property	345	445	222
Investment	567	654	423
Intangibles	423	123	453

Table 8: year-end statement, current assets (£, thousands)

Current assets	2010	2009	2008
Trade and other receivables	435	634	231
Cash and cash equivalents	524	123	482
Other	223	211	254

Table 9: rainfall by continent, 2009

Rainfall (inches)	Americas	Asia	Europe	Africa
Average	133	244	155	166
24 hour high	27	28	29	20
12 hour high	11	12	13	16

Table 10: self-contained year-end statement (£, thousands) (multiple layout problems)

	2011		2010 restated	
General income		250,000		200,000
Increase in value, WIP		15,000		30,000
		265,000		230,000
Administrative costs				
Staff costs	(200,000)		(150,000)	
Early departures	(10,000)		(20,000)	
Other	(25,000)		(10,000)	
Depreciation	(10,000)		(10,000)	
Programme costs				
Impairment loss	(10,000)		(5,000)	
Other	(5,000)		(5,000)	
	(260,000)		(200,000)	
Surplus		5,000		30,000

Table 11: self-contained year-end statement (£, thousands) (multiple problems resolved)

		2011	2010 restated
Income	General income	250,000	200,000
	Increase in value	15,000	30,000
	Total income	265,000	230,000
Administrative costs	Staff costs	(200,000)	(150,000)
	Early departures	(10,000)	(20,000)
	Other operating costs	(25,000)	(10,000)
	Depreciation	(10,000)	(10,000)
Programme costs	Impairment loss	(10,000)	(5,000)
	Other	(5,000)	(5,000)
	Total costs	(260,000)	(200,000)
Surplus		5,000	30,000

Table 12: merged data cells are not recommended

	2008		2009	
Name	Yes	No	Yes	No
Bob	2	5	6	7
Sue	3	8	4	7
Sam	[data relating to both columns in a single cell spanning both]		[data relating to both columns in a single cell spanning both]	

Table 13: use of graphic symbols

Question	Respondent A	Respondent B	Respondent C
Are you a UK citizen?	<input checked="" type="checkbox"/>	✓	<input checked="" type="checkbox"/>
Are you currently employed?	✓	<input checked="" type="checkbox"/>	✓
Do you have a driving licence?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	✓

Table 14: symbols replaced by real text

Question	Respondent A	Respondent B	Respondent C
Are you a UK citizen?	No	Yes	No
Are you currently employed?	Yes	No	Yes
Do you have a driving licence?	No	No	Yes

Table 15: courses offered by Institution X. A = Bachelor of Science, B = Bachelor of Arts, C = Masters, D = Doctorate, E = Diploma

	2006	2007	2008	2009
Economics	A, B	A, C	A, B	A, C
International relations	A, E	A, E	A, B	A, E
Philosophy	A	A	A	A, D
Politics	A, D	A, D	A, D	A
Mathematics	B, C	B	A, E	A, B
English	A, C	A, B	A, B	C

Table 16: Masters courses offered by Institution X

	2006	2007	2008	2009
Economics	No	Yes	Yes	Yes
International relations	No	No	No	No
Philosophy	No	No	No	No
Politics	No	No	No	No
Mathematics	Yes	No	No	No
English	Yes	Yes	Yes	Yes

Table 17: accounts, 2011 (£, thousands)

Accounting item		2011
Income	General income	200,000
	Increase in value, WIP	30,000
	Income subtotal	230,000
Administrative costs	Staff	150,000
	Early departures	20,000
	Other operating costs	10,000
	Depreciation	10,000
Programme costs	Impairment loss	10,000
	Costs subtotal	200,000
Balance		30,000

Table 18: accounts, 2011 (£, thousands)

Accounting item		2011
Income	General income	200,000
	Increase in value, WIP	30,000
	Income subtotal	230,000
Administrative costs	Staff	(150,000)
	Early departures	(20,000)
	Other operating costs	(10,000)
	Depreciation	(10,000)
Programme costs	Impairment loss	(10,000)
	Costs subtotal	(200,000)
Balance		30,000

Table 19: Human Development Index (HDI)
trends, 1980 to 2010. Source: Barro-Lee March, 2010

Country	1980	1990	2000	2010
Afghanistan	0.78	1.48	2.16	3.33
Albania	8.89	9.67	9.89	10.38
Algeria	4.74	3.33	5.50	7.24
Andorra	4.98	5.63	9.09	10.35
Angola	-	-	4.42	4.42

Table 20: footnotes referenced from within a table

Expenditure by function £million		2009/10	2010/11 ¹
Policy functions	Financial	22.5	30.57
	Information ²	10.2	14.8
	Contingency	2.6	1.2
Remunerated functions	Agency services ³	44.7	35.91
	Payments	22.41	19.88
	Banking	22.90	44.23
	Other	12.69	10.32

(1) Provisional total as of publication date.

(2) Costs associated with on-going information programmes.

(3) From the management accounts, net of recoveries and including interest charges

Table 21: footnotes replaced by additional table summary text

Expenditure by function £million		2009/10	2010/11
Policy functions	Financial	22.5	30.57
	Information	10.2	14.8
	Contingency	2.6	1.2
Remunerated functions	Agency services	44.7	35.91
	Payments	22.41	19.88
	Banking	22.90	44.23
	Other	12.69	10.32

Table 22: referencing multiple endnotes from within a table

Expenditure £m	Notes (Notes located on page [n])	2010	2011
Information	1	10.2	14.8
Contingency		2.6	1.2
Payments	3	22.41	19.88
Banking services	4	22.90	44.23
Interest		0.23	0.10
Dividends	23	2.5	3.68
Other	9	12.69	10.32

Table 23: simulated table created using tabs and containing no structure

	2008		2009	
Name	Entered	Completed	Entered	Completed
Bob	22	21	20	19
Sue	44	12	12	10

Table 24: year-end financial statement (£, thousands)

	2010	2009	2008
Non-current assets			
Buildings	345	445	222
Investment	567	654	423
Intangibles	423	123	453
Current assets			
Trade	435	634	231
Cash	524	123	482
Other	223	211	254
Current liabilities			
Trade liabilities	154	125	421
Financial debt	231	474	572
Provisions	111	312	347

Table 25: setting column and row scope via the tags panel

	2008		2009	
Name	Entered	Won	Entered	Won
Bob	22	21	20	19
Sue	44	12	12	10
Sam	16	4	45	30

Table 26: courses offered by Institution X. A = Bachelor of Science, B = Bachelor of Arts, C = Masters, D = Doctorate, E = Diploma

	2006	2007	2008	2009
Economics	A, B	A, C	A, C	A, C
International relations	A, E	A, E	A, B	A, B
Philosophy	A	A	A	A
Politics	A, D	A, D	A, B	A
Mathematics	B, C	B	A, B	A, B
English	A, C	A, B	A, B	A, C

Table 27: “table” with columns simulated by using tab stops

Name	Apples	Pears
Bob Scott	20	25
Susan. P. Arnold-Jones, BA, FRSA, MD	24	15
Sam Holder-Dickinson	14	10

Table 28: year-end financial table (£, thousands) – headings problem revisited

	2010	2009	2008
Non-current assets			
Buildings	345	445	222
Investment	567	654	423
Intangibles	423	123	453
Current assets			
Trade	435	634	231
Cash	524	123	482
Other	223	211	254
Current liabilities			
Trade liabilities	154	125	421
Financial debt	231	474	572
Provisions	111	312	347

Table 29: multiple headers attributes for each data cell

	South America	Asia	Africa	Australia
2010				
Highest average	523.6	467.4	405.0	340.5
Highest in 24 hours	73.1	54.1	27.2	66.3
Highest in 12 hours	42.4	30.1	15.9	40.3
2009				
Highest average	487.7	453.6	398.7	356
Highest in 24 hours	67.2	53.2	44.3	53.8
Highest in 12 hours	34.7	34.1	29.8	31.0
2008				
Highest average	496.7	444.3	502.1	399.6
Highest in 24 hours	44.2	56.7	32.1	63.2
Highest in 12 hours	30.1	32.7	21.9	40.2