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UK Approach to Nutrient Profiling

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Policy purpose

UK model

- **Was developed as a tool to enable the regulation of advertising of food and drink to children**
- **Aims is to contribute to improving children's diets**
- **Is a tool allows individual foods and drinks to be assessed against scientific nutrition criteria**

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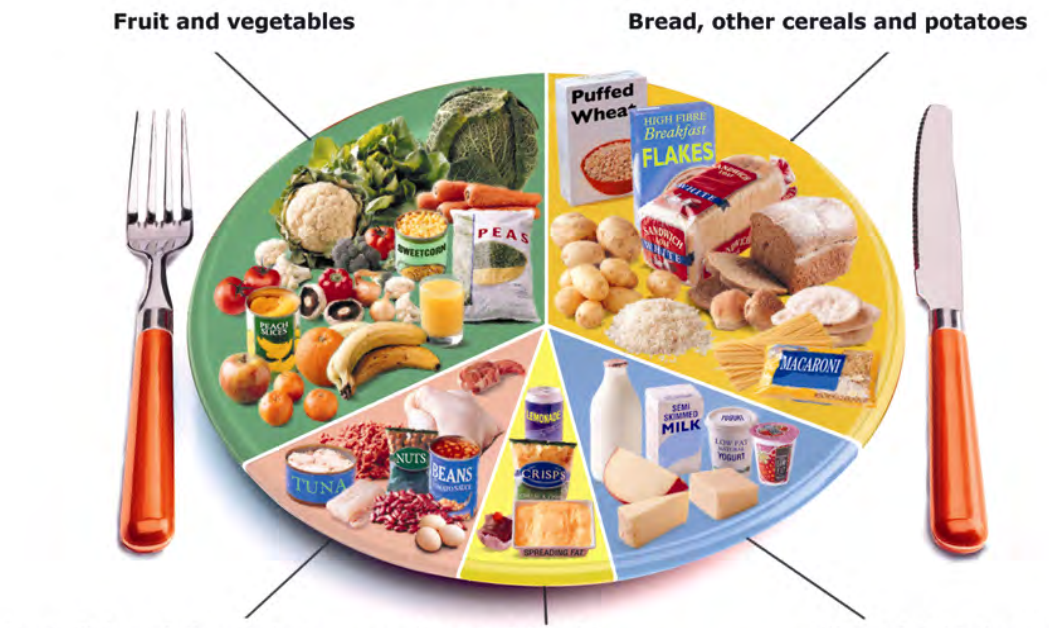
The Balance of Good Health



There are five main groups of valuable foods

Background

- Children eat too much salt, fat and sugar and not enough fruit and vegetables
- Unbalanced promotional environment contributes to lack of balance in children's diets
- Hastings review of evidence

Public Health White Paper, 2004

“develop criteria that take account of fat, salt and sugar levels to indicate the contribution a food makes to a healthy balanced diet. By mid-2005 we aim to have introduced a system that could be used …. to identify which foods can be promoted to children.”

What FSA nutrient profiling model is not

- It is not a consumer communication tool
- It is not the same thing as signposting or the so-called “traffic lights”
- It is not a means of mapping out the whole diet for all individuals

Development of a nutrient profiling model

Development of a nutrient profiling model: Management

- **FSA – *risk managers***
- **Experts from the British Heart Foundation Health Promotion Group - *contractors***
- **Expert working group of nutrition professionals, industry representatives, consumers, and independents – *over saw development***
- **Scientific Advisory Committee on Nutrition –*checked scientific validly***

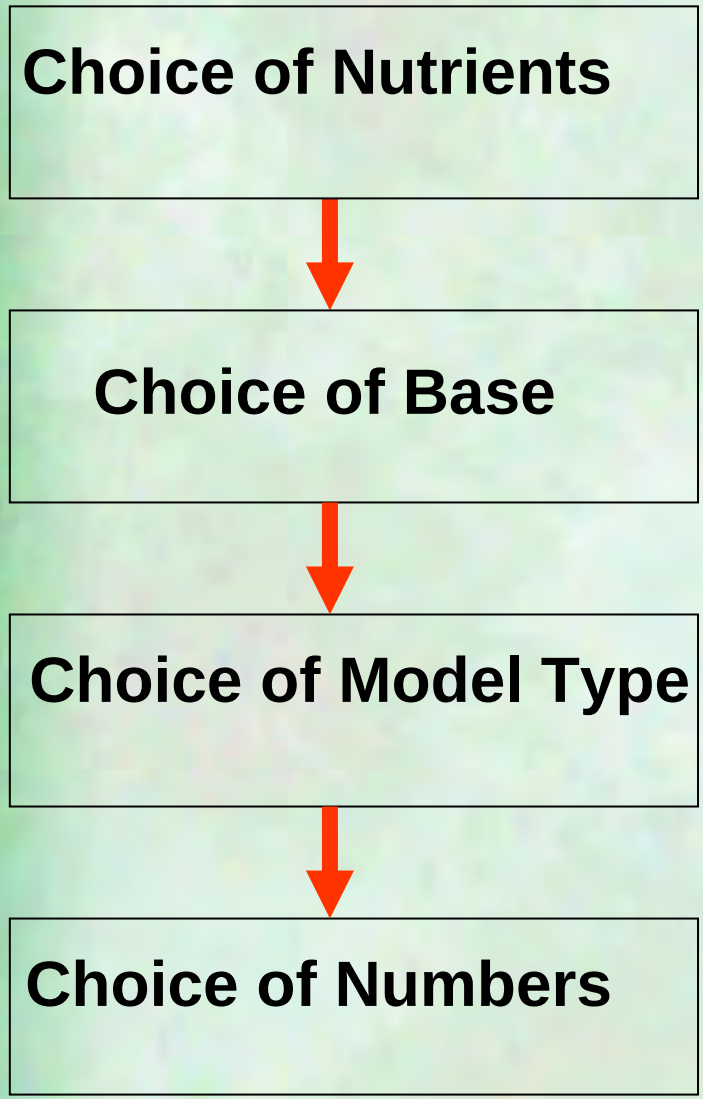
Consultation

- Academic workshop
- Subject to full public consultation process
  (Nov 2004 - Feb 2005 and July - Sept 2005)

Systematic Approach

- **Systematic approach**
  - **Literature review to inform the project**
  - **Development of models according to expert group parameters (nutrients, bases g / kj and per serving, type of model – threshold and scoring)**
  - **Refinement of models through testing, expert advice and consultation**

Four-stage decision process



- Energy, saturated fat, salt, sugar
- fibre, protein, fruit and vegetables, nuts
- Per 100g
- scoring
- based on expert advice

Choice nutrients

Examples – what was tested:

- **Energy**
- **Sat fat, total fat, LC n3 fatty acids**
- **Non-milk extrinsic sugar, added sugar, total sugar**
- **Calcium**
- **Iron**
- **Fruit and vegetables**
- **Fibre, NSP, AOAC**

Choice of nutrients

- After review and initial discussion
  - ❖ Negative components - saturated fat, NMES, energy density
  - ❖ Balancing – calcium, iron, LC n-3 fatty acids, fruit & veg

- Academic workshop - protein as replaced calcium, iron and LC n-3 fatty acids

- Early changes – total sugar replaced NMES and fibre added

- SACN recommend nuts added

- Consultation leads to inclusion of AOAC fibre score

Choice of Base

Initial Parameters Modelled;

- **per 100g,**
- **per 100kj,**
- **per 100g and or per serving**
- **per 100kj and or per serving**

Expert group agreed 100g base - serving sizes difficult to define and 100g is basis of other nutrient criteria

Choice of numbers

- **Based on expert advice from COMA/ SACN**
- **Expert group agrees numbers should relate to agreed public health recommendations - eg FSA guidance on what constitutes ‘a lot’, GDAs, Balance of Good Health, population dietary goals.**
- **Refinement through testing and expert advice**

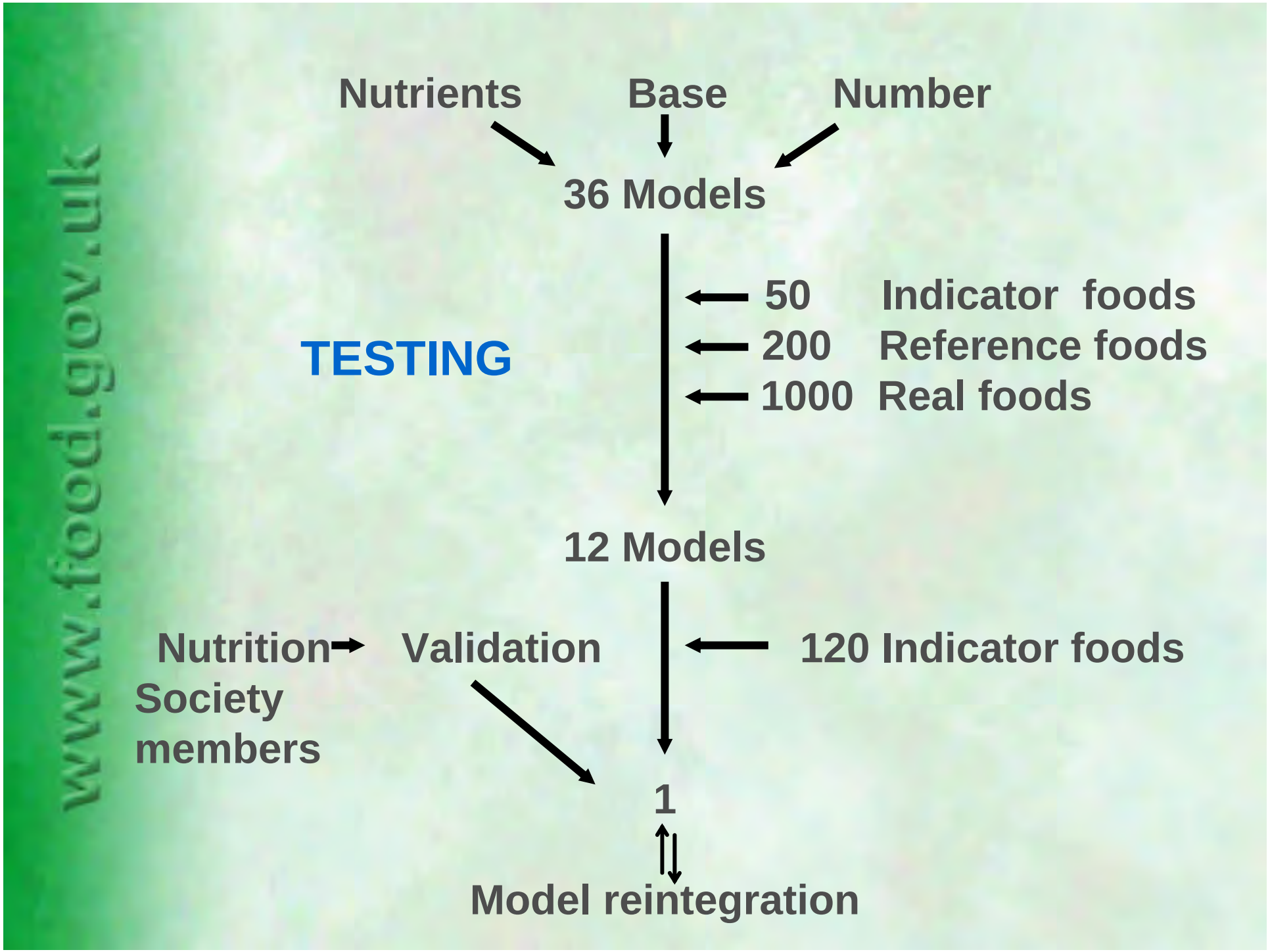
Numbers

Points ⇒	0	1	2	3	4	5	6	7	8	9	10
Energy (kJ)	<335	≥335	≥670	≥1005	≥1340	≥1675	≥2010	≥2345	≥2680	≥3015	≥3350
Sat Fat (g)	<1	≥1	≥2	≥3	≥4	≥5	≥6	≥7	≥8	≥9	≥10
Total Sugar (g)	<4.5	≥4.5	≥9	≥13.5	≥18	≥22.5	≥27	≥31	≥36	≥40	≥45
Sodium (mg)	<90	≥90	≥180	≥270	≥360	≥450	≥540	≥630	≥720	≥810	≥900

Points ⇒	0	1	2	3	4	5
Protein (mg)	<1.6	≥1.6	≥3.2	≥4.8	≥6.4	>8.0
Fibre (mg)	<0.7	≥0.7	≥1.4	≥2.1	≥2.8	>3.5
Fruit & Veg (%)	<30	≥40	≥50	-	≥70	80

Choice of Model Type

- **Threshold**
- **Simple scoring**
- **Complicated scoring**


Nutrients
Base
Number
36 Models
TESTING
50 Indicator foods
200 Reference foods
1000 Real foods
12 Models
Nutrition Society members
Validation
120 Indicator foods
1
Model reintegration
www.food.gov.uk

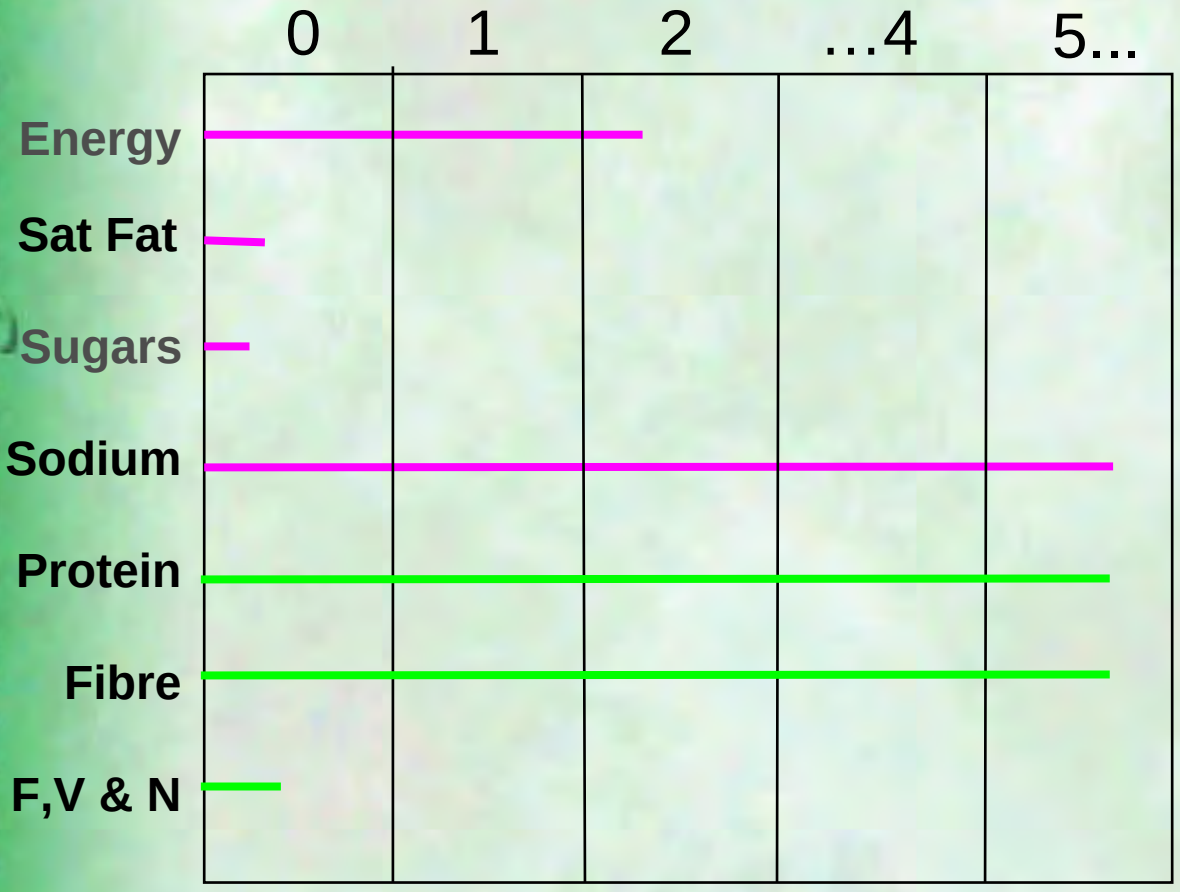
The preferred model

Add points	**0**	**1**	**2**	**….**	**10**
Energy (kj)	=335	>335	>670	….	>3350
Sat fat (g)	=1	> 1	>2	….	>10
Total sugar (g)	=4.5	>4.5	>9	….	>45
Sodium (mg)	=90	>90	>180	….	>900

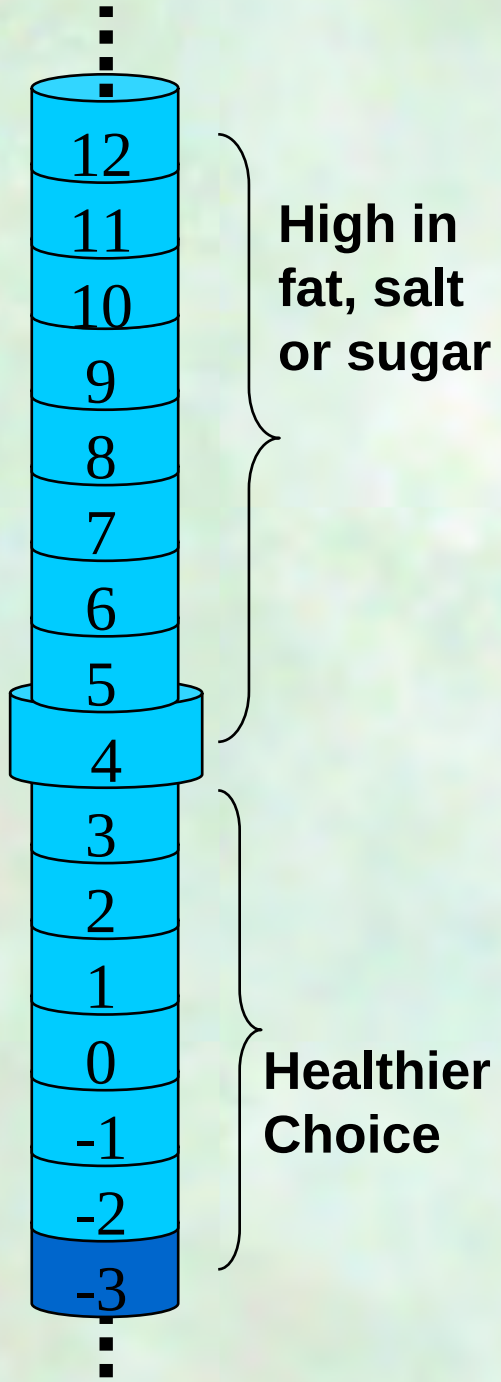
Subtract Points	**0**	**1**	**2**	**….**	**5**
Protein (g)	=1.6	>1.6	>3.2	….	>8.0
Fibre (g)	=0.7	>0.7	>1.4	….	>3.5
Fruit, veg & nuts (%)	=40	>40	>60	….	>80

HFSS food = **4 or more**	HFSS drink = **1 or more**

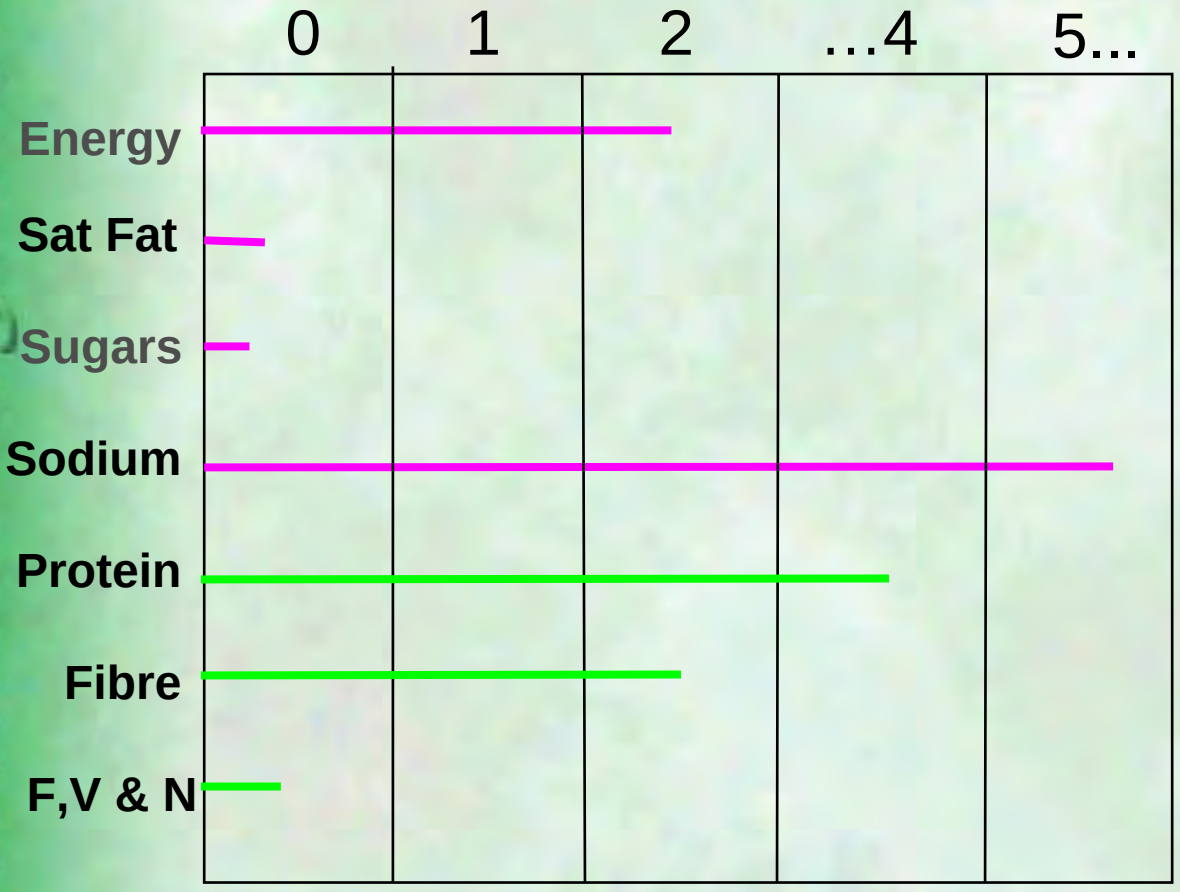
Wholemeal bread



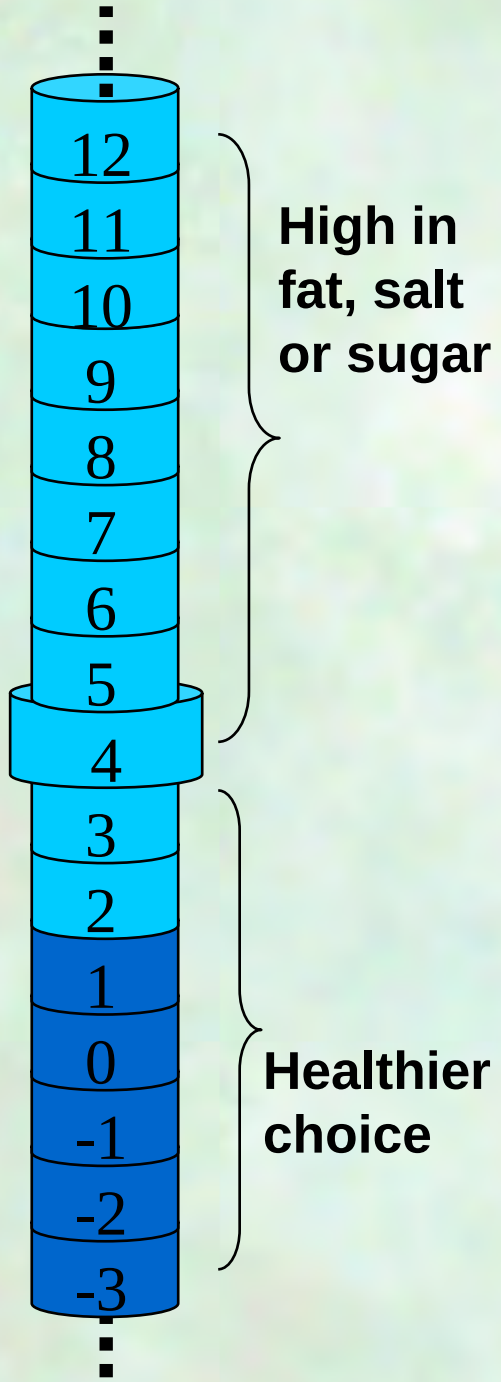
Total = 2 + 0 + 0 + 5 - 5 - 5 - 0 = -3



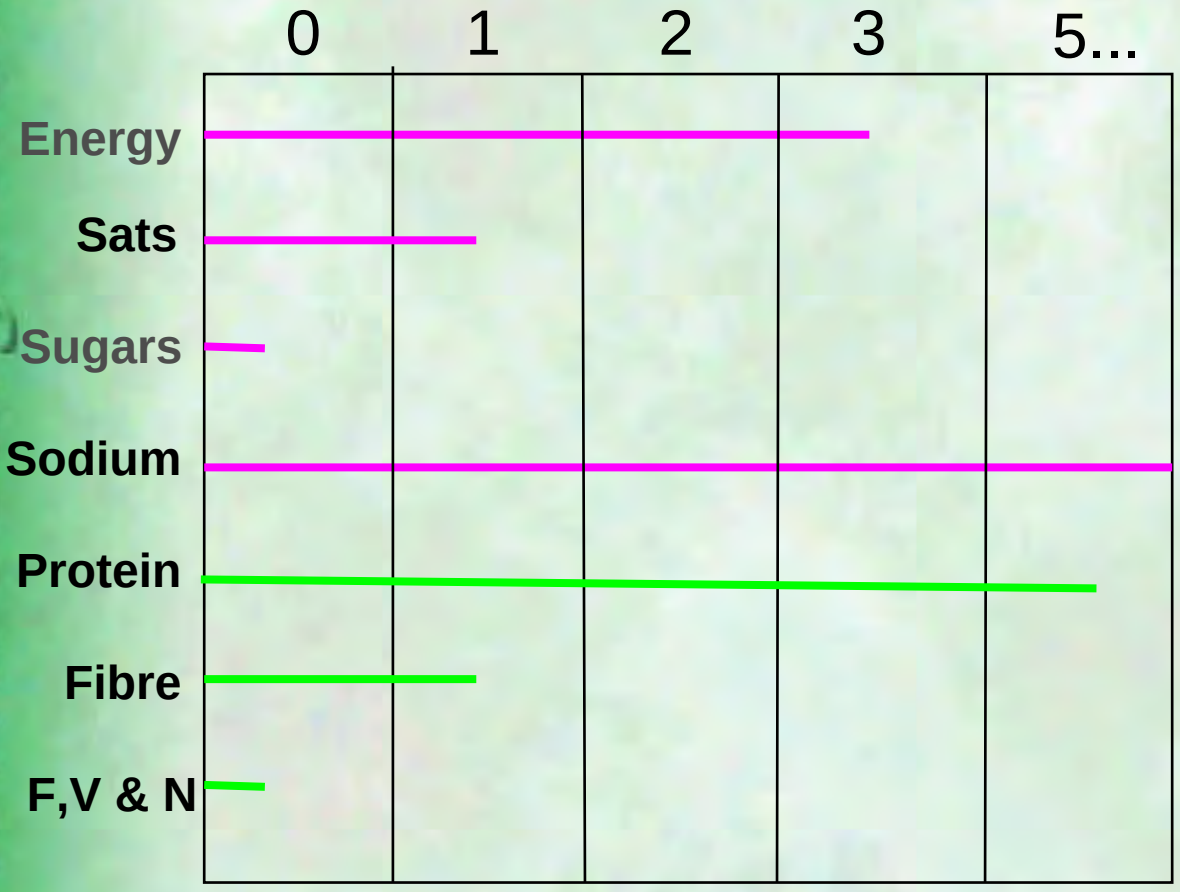
Sliced white bread

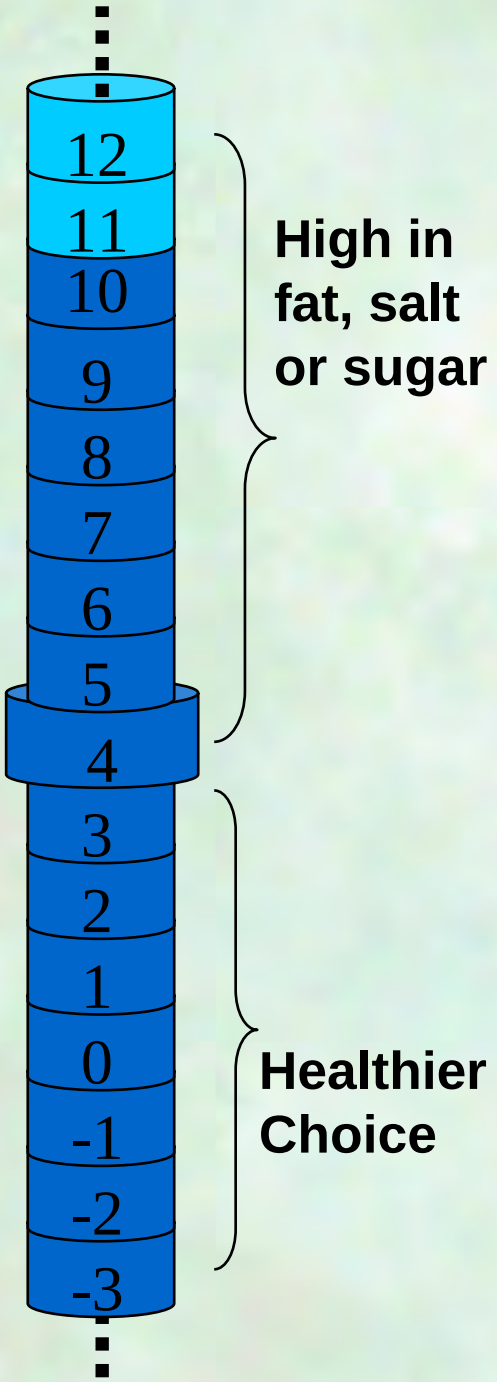


Total = 2 + 0 + 0 + 5 - 4 - 2 - 0 = 1



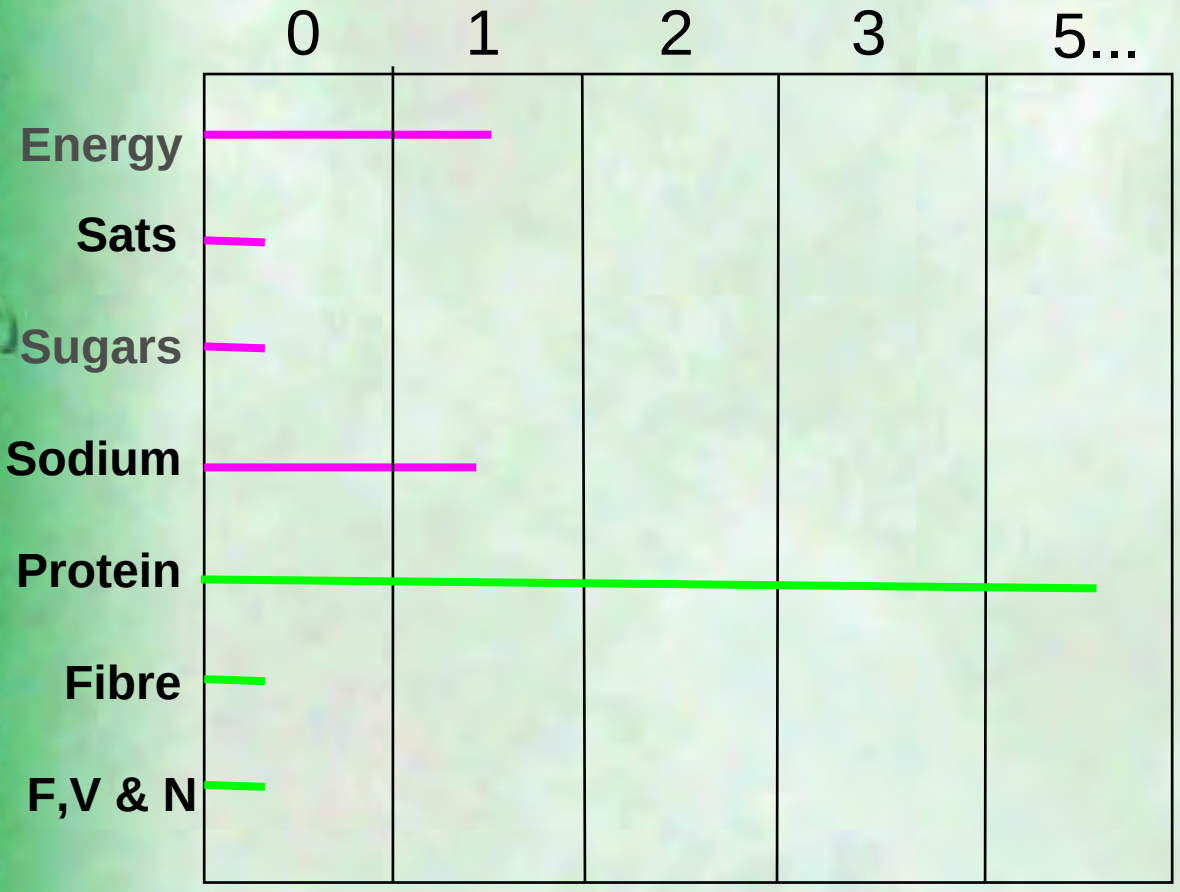
Chicken Nuggets



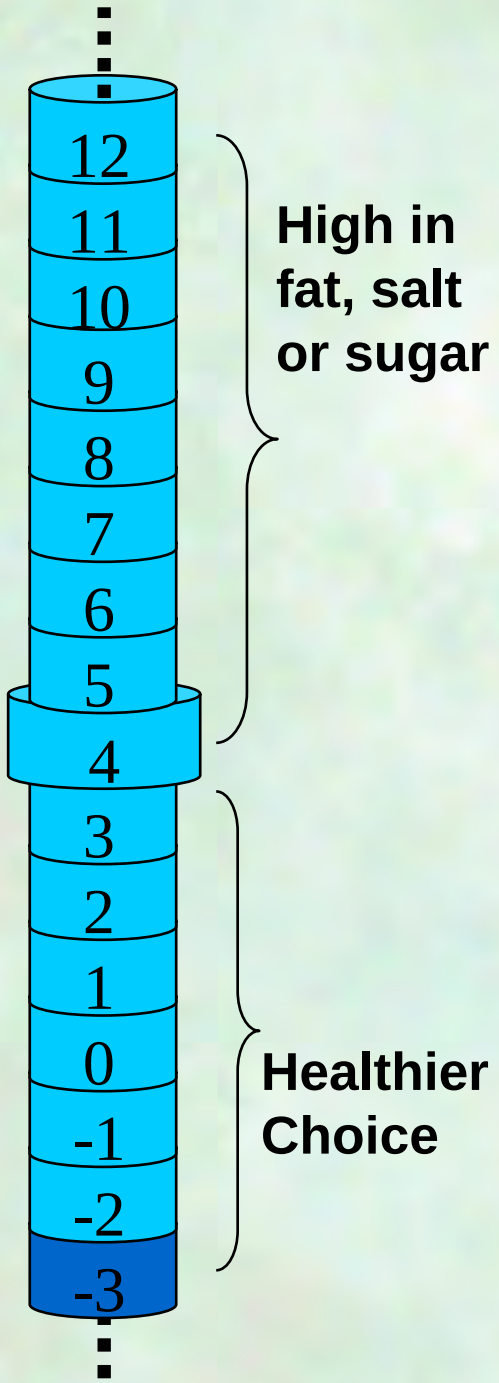


Total = 3 + 1 + 0 + 7 – 1 = 10

Chicken Breast



Total = 1 + 0 + 0 + 1 - 5 - 0 - 0 = - 3



FSA model

- **Is practical to apply**
- **Is recipe dependent and therefore encourages innovation**
- **Classifies foods in a way that is consistent with:**
  - **opinion of nutrition professionals and experts**
  - **existing healthy eating advice**
  - **existing DH/FSA consumer messages (e.g. 5 a day, salt campaign, advice on oily fish)**

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