



- Progress 8: An Explanation

# What is Progress 8?

- **Progress 8** is a new secondary accountability measure aimed at measuring the progress of pupils across a selected set of 8 subjects.
- It is a type of **value added measure**, meaning that pupils' results are compared to the actual achievements of other pupils with the same prior attainment.
- It has been introduced alongside another new accountability measure; **Attainment 8** – the two are linked and will be explained in later slides.

# When does Progress 8 come into effect?

- The **Progress 8** measure will be introduced for all schools in 2016. From this point, the floor standard will be based solely on schools' exam results on the **Progress 8** measure.
- The **Progress 8** score and the **Attainment 8** score will be published in performance tables from late 2016/early 2017.
- Schools are able to 'opt in' early to **Progress 8** if they wish. If so they will be held to account on the new performance measures one year early (based on 2015 exam results)

# Determining the Progress 8 score

- The **Progress 8** score is based on pupils performance across 8 subjects – this performance score is known as the “**Attainment 8**” score.
- Therefore, to understand **Progress 8** it is necessary to first understand **Attainment 8**.
- **Attainment 8** will also be published in performance tables alongside the **Progress 8** measure.

# Attainment 8

- **Attainment 8** is a measure of a pupil's average grade across a set suite of eight subjects.
- Grades will be measured on a 1-8 point score scale, rather than the current 16-58 scale.
- On this new scale, 1 is equivalent to a Grade G GCSE. An increase in one point will represent an increase of one GCSE grade up to 8, which is equivalent to an A\* GCSE.

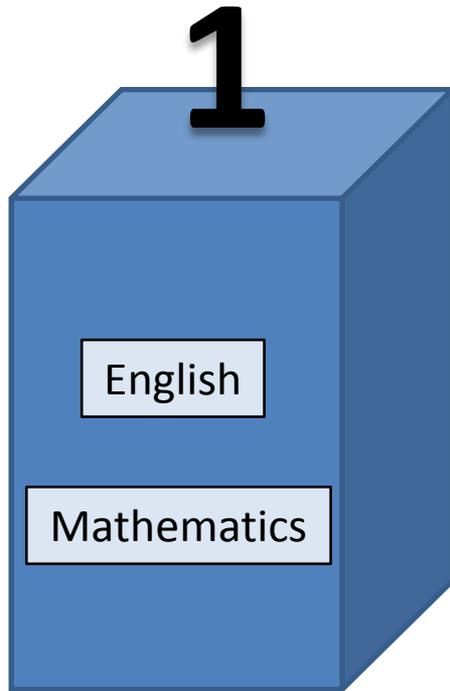
# New point scale scores for GCSEs

GCSE GRADE		2016 POINTS
A*	→	8.0
A	→	7.0
B	→	6.0
C	→	5.0
D	→	4.0
E	→	3.0
F	→	2.0
G	→	1.0

# The Attainment 8 “buckets”

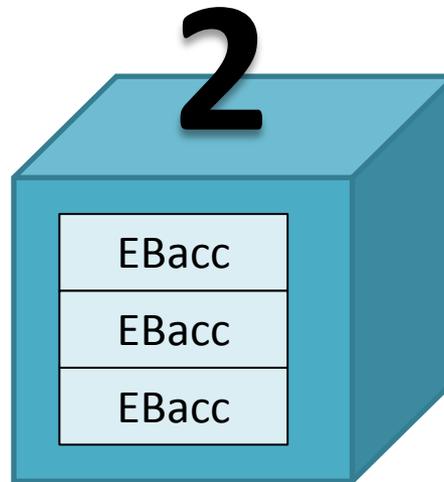
- The **Attainment 8** measure will take the average of a pupils points across a set of their best 8 subjects.
- The 8 qualifications that count towards the **Attainment 8** measure must fall into one of three “buckets.” If a qualification does not fall into one of these buckets, it is not counted in the attainment 8 (or progress 8) measure.

# The Attainment 8 Buckets



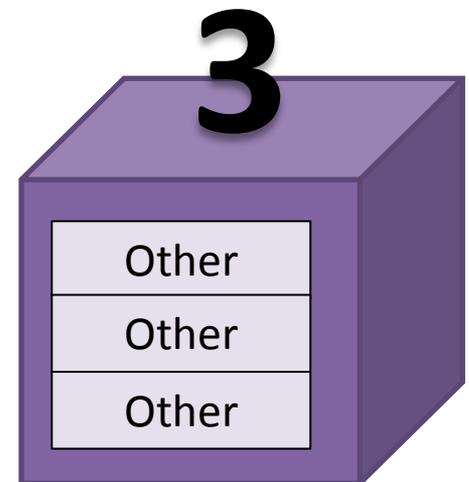
## Bucket 1

- One slot for English and one for maths; double-weighted



## Bucket 2

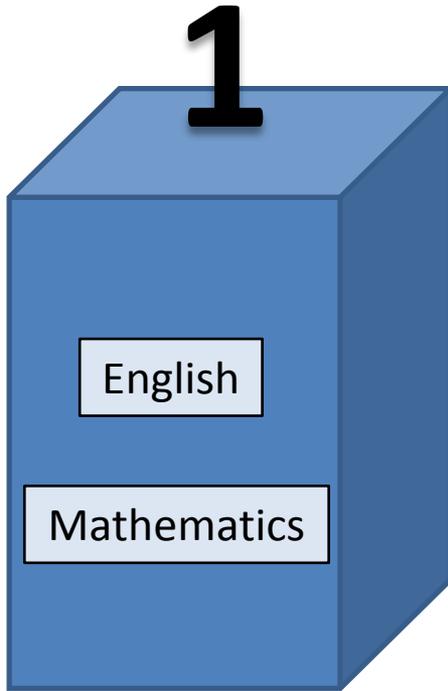
- Three EBacc qualifications
- (Sciences, computer sciences, geography, history or languages)



## Bucket 3

- Three “other” slots
- Any remaining Ebacc qualifications
- Other approved academic, arts or vocational qualifications

# Bucket 1



## Bucket 1

- English and maths; both double-weighted

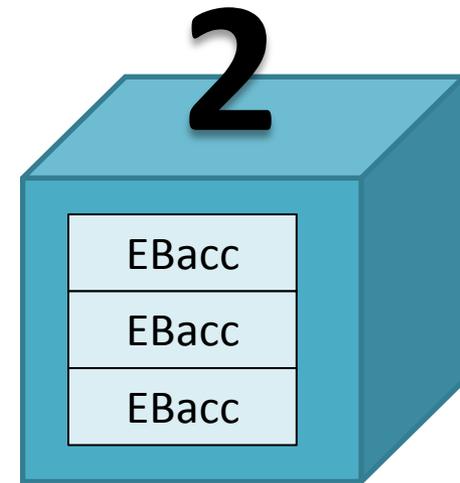
- Bucket 1 can only be filled by English and Maths. Maths is given double weighting when calculating the pupils **Attainment 8** score .
- English is only double weighted if a pupil has taken both English Language and English Literature. In this case, the higher of the two grades is used here and double weighted.
- The lower graded English subject can still be included in the third bucket – the “open group,” but only if it is one of the pupils eight highest grade. Otherwise, this space will be filled by a higher grade.

# Bucket 2

Bucket 2 can be filled with a pupils three highest grades from the Ebacc subjects. This includes:

- Separate sciences
- Core & Additional sciences
- Computer science
- History
- Geography
- Languages
  
- Double science would count as two slots in this bucket.
- Core science and additional science GCSE would also take up one slot each.

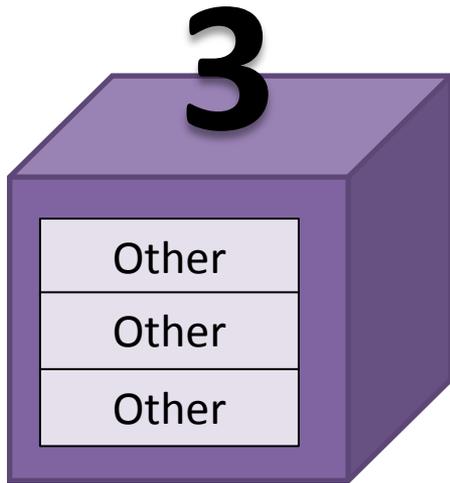
These grades are **not** double weighted.



## Bucket 2

- Three EBacc qualifications

# Bucket 3



## Bucket 3

- Any remaining Ebacc qualifications
  - Other approved academic, arts or vocational qualifications
- Bucket 3 is filled with a pupils three highest point scores in any three other subjects, including English Literature and Language (if not counted in bucket 1), any further Ebacc qualifications, other GCSEs, or any other **approved** academic or vocational qualifications.
  - A list of approved qualifications from the DfE can be found [here](#).
  - These grades are **not** double weighted.

# 8 Qualifications?

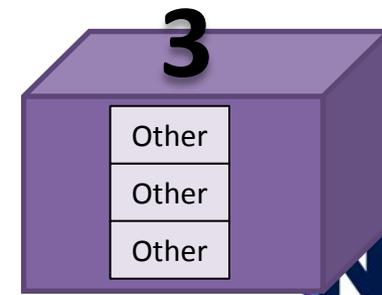
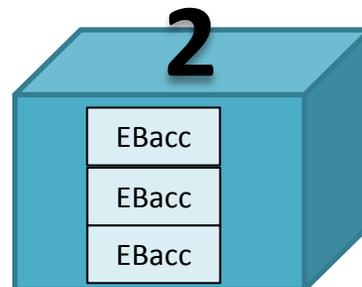
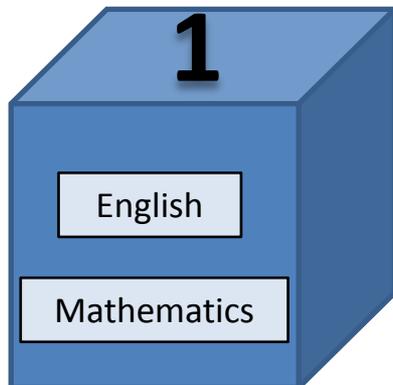
- The 8 grades from the three buckets are added together and divided by 10 to produce a student's **Attainment 8** score. The maths grade in bucket 1 is given double weighting, as is English if the pupil has taken both English Literature and English Language.
- No matter how full or empty the three buckets are, a student's score is **always** divided by 10 to produce an average score (10 representing the 8 subject slots, with English & Maths double weighted)
- It is not mandatory for students to fill the three buckets or take 8 qualifications.
- If a student has fewer than 8 qualifications, or if some of their qualifications do not fit into one of the three buckets then they will score 0 points for the unfilled slots.
- Consider the following examples:

# Example students results: Andrea

Art: 6		Grade: B / 6	Included in measure? <b>Yes</b> – Bucket 3.
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Music: 5		Grade: C / 5	Included in measure? <b>Yes</b> – Bucket 3.
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English Language: 4	guage	Grade: D / 4	Included in measure? <b>Yes</b> – Bucket 3 (Bucket 1 slot has been filled by a higher-grade English qualification)
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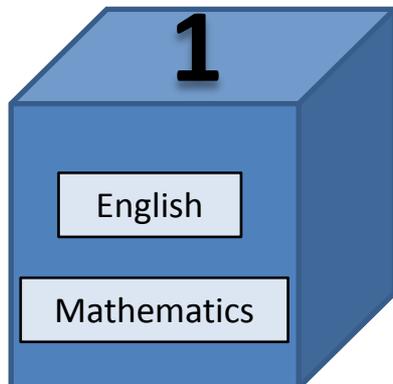


# Calculating Andrea's Attainment 8 score

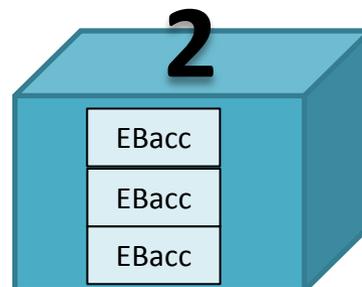
- To produce the Attainment 8 score, these grades are first added together.
- Maths is double weighted. In Andrea's case, English Literature is also double weighted since she has also taken English Language.
- The resultant score (in this case, 54) is then divided by 10 (the 8 subjects, plus the double weighting of English and Maths.)
- This example student has therefore achieved an Attainment 8 score of **5.4**

$$(8+14+6+6+5+6+4) / 10 = 5.4$$

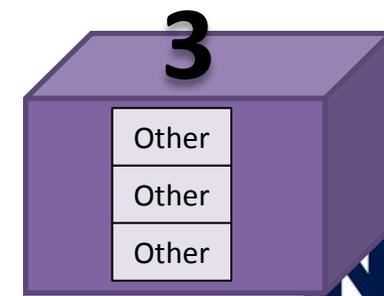
Maths: <b>8</b>
English Literature: <b>14</b>



Additional Science: 6
Core Science: 6
Geography: 5



Art: 6
Music: 5
English Language: 4



# Example student results: Sonya

Subject	Result	Double weighted?	Bucket	Total
English Literature	E (3)	No	English	3
Maths	C (5)	Yes	Maths	10
BTEC First Award in Hospitality	Merit (6)	No	Other	6
Cambridge National Certificate in ICT	Pass (5)	No	Other	5
PE	C (5)	No	Other	5
Music	D (4)	No	N/A (all "other" slots filled)	0
Art	D (4)	No	N/A (all "other" slots filled)	0
Cambridge National Certificate in Business and Enterprise	C (5)	No	N/A (all "other" slots filled)	0

- This fictional example is aimed at showing the importance of a well-rounded curriculum. Sonya has taken no Ebacc subjects, and her English grade cannot be double weighted as she has only taken one English qualification.
- Having already filled bucket three, her remaining three subjects cannot be used in the Attainment 8 measure (as they cannot be counted in the Ebacc bucket). These therefore count as 0 in the calculations.
- Sonya has therefore achieved an **Attainment 8** score of 2.9.  

$$(3+10+6+5+5+0+0+0) / 10 = 2.9$$

# Calculating Progress 8

- A pupil's **Progress 8** score will be published in performance tables, replacing the current system of pupils being expected to make three levels of progress from KS2 to KS4.
- It is defined as a pupil's *actual* **Attainment 8** score, minus their *estimated* **Attainment 8** score.
- The estimated Attainment 8 score is the average Attainment 8 score of all pupils nationally with the same prior attainment at key stage 2.
- This prior attainment is taken as the average of a pupils KS2 English and mathematics results, in fine graded levels.
- 2013 Attainment estimates are shown on the next slide, and are also available on page 17 of the DfE's *Progress 8 Technical Guide* [here](#)

# Provisional 2013 Attainment 8 estimates for each KS2 fine level

KS2 average fine level (English & Maths)	2013 Attainment 8 estimate	KS2 average fine level (English & Maths)	2013 Attainment 8 estimate	KS2 average fine level (English & Maths)	2013 Attainment 8 estimate
1.5 <sup>a</sup>	13	3.7	29	4.9	54
2.0 <sup>b</sup>	15	3.8	31	5.0	56
2.5 <sup>c</sup>	17	3.9	32	5.1	59
2.8 <sup>d</sup>	19	4.0	34	5.2	61
2.9	20	4.1	36	5.3	64
3.0	21	4.2	38	5.4	66
3.1	22	4.3	40	5.5	69
3.2	23	4.4	42	5.6	72
3.3	24	4.5	44	5.7	74
3.4	25	4.6	47	5.8 <sup>e</sup>	76
3.5	26	4.7	49		
3.6	28	4.8	51		

# Calculating Progress 8 – Example A

- If our student Andrea from the earlier slides had received a KS2 average of (for example) 4.7, she would be expected to achieve an **Attainment 8** grade of 49 (or 4.9)
- This is based on the national average **Attainment 8** score of other pupils who achieved the same KS2 results as Andrea
- As we saw, Andrea's *actual* Attainment 8 grade was 5.4
- Her actual attainment 8 grade (5.4) minus her expected attainment 8 grade (4.9) = a **Progress 8** score of **+0.5**
- This means that she achieved an average of half a grade better per subject than other pupils with the same prior attainment at KS2.

# Calculating Progress 8 – Example B

- As another example, Sonya from the earlier slides also achieved a KS2 average grade of 4.7. According to the 2013 attainment estimates (these will change for 2016!) she, like Andrea, is expected to achieve an **Attainment 8** grade of 49 (or 4.9)
- However, a number of her qualifications did not count in the Attainment 8 measures, leaving her with an actual score of 2.9
- $\text{Progress 8} = \text{Actual attainment 8 grade (2.9)} \text{ minus expected attainment 8 grade (4.9)} = -2$
- This means that this student achieved an average of 2 grades worse per subject than other pupils with the same prior attainment at KS2.

# Calculating Progress 8 for schools

- The school's **Progress 8** score is the mean average of its pupils' **Progress 8** scores.
- This is therefore calculated by adding each individual pupil's **Progress 8** score, and then dividing this total by the number of pupils.
- For example...

# Example calculation of School Progress 8 score

- Assuming that Andrea and Sonya are two of 200 pupils in a schools KS4 cohort (each with a range of Progress 8 scores):

Pupil Number	Pupil Name	Pupil Progress 8 score
1	Andrea -	+0.5
2	Sonya -	-2
3	Sarawut-	+0.2
...	...	...
...	...	...
200	Lin -	-0.7
<b>Total:</b>		<b>+29.5</b>

- The school's Progress 8 score is therefore  $29.5/200 = 0.147$
- This score would be rounded to two decimal place in performance tables, so this school would have a published Progress 8 score of **+0.15**

# How is Progress 8 used?

- The Progress 8 measure will be the **only** measure used for floor standards.
- A school will fall below the new floor standard if their Progress 8 score is below **-0.5**
- This score would indicate that the average achievement of a school's pupils is **half a grade worse per subject** than the national average of other pupils with the same prior attainment.
- If schools fall below this floor standard, this will trigger an Ofsted inspection.

