Assignment Title	Index Numbers	Date set	Autumn 1	Hours	10

Summary of Unit 7		Key Words
Know the different types of index numbers Use different index numbers in context Calculate and interpret data involving rates of change		Index numbers, weighted numbers, consumer price index, retail price index, gross domestic product, rate of change, increasing, decreasing

Prior Knowledge

1. Convert the following decimals and fractions into percentages
   (a) 0.64
   (b) 0.12
   (c) 0.98
   (d) 0.125
   (e) $\frac{3}{4}$
   (f) $\frac{2}{5}$

1. Write the percentage multiplier needed to
   (a) Find 30%
   (b) Find 64%
   (c) Find 88%
   (d) Increase by 10%
   (e) Increase by 72%
   (f) Decrease by 24%
   (g) Decrease by 2%

2. Write 21 as a percentage of 42

3. Write 19 as a percentage of 100

4. Write 2 as a percentage of 15

5. A height of a tree increases from 90cm to 110cm. Find the percentage height increase

LEARNING JOURNEY

Level	Task Description/ Learning Journey
4-5	Calculate and interpret simple index numbers Interpret retail price index (RPI), and consumer price index (CPI), and gross domestic product (GDP)
4-5	Interpret data related to rates of change over time (including, but not limited to percentage change, births, deaths, house prices, and unemployment) when given in graphical form.
5-6 (H)	Calculate and interpret weighted index numbers Calculate chain based index numbers
5-6 (H)	Calculate standardised birth and death rates

Diagnostic Test – Unit 7

1. In 2016, the price pf a litre of petrol was 116p.
   In 2008, the price of petrol was 92p.
   Using 2008 as the base year, work out the index number for a litre of petrol

2. In 2015, a bottle of squash cost £1 for a litre. Taking 2015 to be the base year, the 2016 has an index number of 118.
   Work out the cost of s similar bottle of squash in 2016

3. A chef uses weighted index numbers to monitor the cost of her ingredients. Weights are given to show how important each ingredient is on her menu. The price index for 2017 is known and the base year for the price index was 2010, when the restaurant opened.

Ingredient	Weight	Index
Meat	132	173
Fish	145	226
Fruit, salad and veg	98	163
Oils/seasoning	42	132

   Calculate the weighted index costs in 2017. Give your answer to 3 significant figures. Interpret your answer in context

4. A town with population 15874 recorded 375 deaths in one year. Find the crude death rate for the town