AS ECONOMICS BRIDGING BOOKLET



The purpose of this course is to give you a flavour of the sorts of topics and types of assessments students cover at A-Level.

As most students have never studied this subject prior to AS level, it is really important to think about why you might want to study economics. Economics is a social science which tries to explain how we organise the world's scarce resources to satisfy society's needs and wants. You are unlikely to be interested in this as an academic subject, unless you are already interested in current affairs and politics in order to understand how decisions are made. You should be interested in answering questions like the following examples:

- Why do prices rise and fall? Does it matter?
- Why do we get paid more if we have 'A' levels or a degree?
- Why do some firms make high profits and others don't?
- Why is there unemployment? Why does it differ between social groups, industries & geographical areas?
- How equal is society? Does it matter?
- What causes a country to grow faster than another country?
- Why do we pay taxes?
- How and why does the government try to change our consumption of goods and services?
- How will Brexit affect the UK? How will Covid 19 affect the UK and its trade relationships globally?

A LEVEL COURSE OUTLINE

PAPER 2 WIACRUECUNUIVIICS	PAPER 3 SYNOPTIC
The national and international	Economic principles and issues
economy	
The measurement of	The application of both micro
macroeconomic performance	and macro theories to real world decision-making by firms, other
How the macro economy works	organisations and governments.
Economic performance	
Financial markets and monetary	
policy	
Fiscal policy and supply-side	
policies	
The international economy	
	PAPER 2 MACROECONOMICS The national and international economy The measurement of macroeconomic performance How the macro economy works Economic performance Financial markets and monetary policy Fiscal policy and supply-side policies The international economy

Quantitative skills

The reform of the A-Level specifications made quantitative (numerical) skills more important. Assessments have to include at least Level 2 (GCSE) mathematical skills as a minimum of 20% of the overall A-level marks.

In order to develop their skills, knowledge and understanding in economics, students need to have acquired competence in the quantitative skills that are relevant to the subject content and which are applied in the context of an economics A-level, including:

- calculate, use and understand ratios and fractions
- calculate, use and understand percentages and percentage changes
- understand and use the terms mean, median and relevant quantiles
- construct and interpret a range of standard graphical forms
- calculate and interpret index numbers
- calculate cost, revenue and profit (marginal, average, totals)
- make calculations to convert from money to real terms
- make calculations of elasticity and interpret the result
- interpret, apply and analyse information in written, graphical and numerical forms.

TASK ONE: Initial Numeracy Assessment

As a starting point, we ask students to complete an initial numeracy task, so they can judge for themselves their confidence with numbers AND can identify particular areas which may need further support later. Have a go, see how you get on.

Milano's Pizza is a large-scale frozen pizza manufacturer based in Newcastle. They have 4 pizza machines. 1
machine can make 500 margarita pizzas an hour OR 400 ham and pineapple pizzas per hour. The manager
currently has 2 machines making margarita pizzas and 2 machines making ham and pineapple pizzas.
Assuming there are no defects or production problems, what is the maximum number of pizzas the firm
makes in 12 hours. Show your workings here:

2. The regional demand for Milano's ham and pineapple pizzas increases after two prominent Newcastle footballers post a photo of themselves on Instagram eating them. To satisfy the extra demand, the manager at Milano's decides that she will use 3 machines to make ham and pineapple pizzas and 1 machine to make margarita pizzas. Calculate the new maximum number of pizzas made in 12 hours. Show your workings here:

3. After a few weeks, the manager decides that the only way she can cope with the surging demand is to buy 2 more machines (6 machines in total). She uses 1 to make margarita pizzas (2 machines in total) and 1 to make ham and pineapple pizzas (4 machines in total). Calculate the percentage change in production in both types of pizza. Show your workings here:

4. Geoff sells a house for £650,000 in Harrogate. The estate agent is paid 1.5% of the selling price for her services. Calculate how much she is paid. Show your workings here:

- 5. Geoff buys a new 1-bedroom apartment in London with the proceeds from his house sale in Harrogate. The apartment costs him £500,000 to buy. This time he has to pay Stamp Duty tax on his purchase. Stamp Duty tax at this price is 3%. How much tax does he pay? Show your workings here:
- Over the next five years, London house prices go up by 45%. House prices in Harrogate decrease by 1.25%
 i) Calculate how much Geoff's London apartment is worth five years later
 - ii) Calculate how much his house in Harrogate would have been worth if he hadn't sold it.





A and B are two points on a straight line. If we move from A to B, how many X units do we gain and how many Y units do we lose? Show your workings here:



Calculate the area of

each of the shaded rectangles. Show your workings here:



The gradient does not change but the relationship between Y and X changes. At each amount of Y there are now 400 more units of X. Adapt the diagram above to illustrate the change. Show any workings you need to do here:

10. The owner of a small carpet cleaning business looks at the annual salaries of his five employees.

Employee 1 (duty manager)	£32,000
Employee 2	£14,000
Employee 3	£14,000
Employee 4	£16,000
Employee 5	£18,000

- (i) Calculate the total expenditure on labour costs
- (ii) Calculate mean average and median average salary for the five employees. Show your workings here:
- 11. The boss hires a sixth employee to the business. The employee is highly experienced and very skilled. As a result, she commands a relatively high salary of £26,000.
- i) Calculate the extra cost of the additional employee.
- ii) Calculate the change in the mean average salary in the business.

iii) Calculate the new median average salary for the employees of the carpet cleaning business.

12. A British-made car costs £20,000. The current exchange rate is £1 (UK pound) to \$1.30 (US dollars). 6

months ago, the exchange rate was £1 to \$1.50. Calculate how much the £20,000 car costs in US dollars i) now

- i) 110w
- ii) 6 months ago.
- 13. The exchange rate of UK pounds (£) to Euros (€) changes from £1 = €1.10 to £1 = €1.25.
 - i) Calculate the percentage increase of €1.1 to €1.25.
 - ii) Calculate the UK price (£) of a €500 washing machine made in Italy, after the exchange rate change.



(i) Of the selected countries above, what percentage of UK migrants live in Spain?

(ii) Compare the number of UK migrants living in Ireland compared to the number living in Portugal. Show your workings here:





15. The graph shows the number of people in work in the UK over time.

- (i) Calculate the percentage change from the lowest point to the highest point.
- (ii) Assuming the UK population was constant at 63m throughout this period (it wasn't, but assume it was!), calculate the number of people in work as a percentage of the population in both 2008 and 2014.

TOPIC 1: UNDERSTANDING THE DIFFERENCE BETWEEN MICRO AND MACRO ECONOMICS

Economics is split into 2 sections: micro and macro. It's important that you understand the difference between the two.



In macroeconomics we look at economies. It's economics at a national or international level. It's about trade and the links between countries, and performance in terms of unemployment, growth and inflation.

In microeconomics we look much more closely at what's happening to individuals, firms and markets. It's like looking down the microscope into the economy.

Watch the following presentation to find out more about the difference between micro and macroeconomics:

• "Micro and Macroeconomics"

https://www.tutor2u.net/economics/reference/head-start-economics-introduction-to-macroeconomics

In the table below, can you identify which is related to micro and which is related to macroeconomics?

	Micro	Macro
Studying why the price of oil has fallen		
Studying why unemployment has risen		
Studying changes in the values of exports & imports		
Studying why nurses are paid less than footballers		
Studying why monopolies make high profits		
Studying the effect of globalisation on trade		

TOPIC 2: ECONOMIC GROWTH AND GDP (MACROECONOMICS)

GDP or Gross Domestic Product is the main measure of economic activity in an economy. It is the money value of all the goods and services produced by a country in a specified period of time, usually one year.

GDP gives us an idea of how big an economy is. It allows us to compare different countries in terms of the size of their economy. More importantly it allows us to judge economic performance. We want our economy to grow! The more goods and services being produced, the more there are to sell and create wealth, the more people are in jobs, the more tax the government can earn on income and profit, the more the government can spend on our health, education, and the infrastructure of the country. This all adds up to potentially, an increase in our standard of living – our economic welfare!

GDP data can tell us has our economy grown or shrunk in size. What has been the rate of change? The key measures economists look at are: percentage change in real GDP and real GDP per capita (per head). We'll come back to this word "real" later on. For now, have a look at these videos via the link below:

- "Measuring Economic Activity"
- "The Changing World Economy"

There are some interactive activities you can have a go at on the webpage too!

TOPIC 3: PROBLEMS MEASURING GDP (MACROECONOMICS)

There is a strong case that GDP figures are inaccurate!

MEASURING THE UNMEASURABLE	Some sections of the economy don't have an output which is physical. Nothing exists which can be traded – so it doesn't have a price. Think about nurses, doctors, teachers, the civil services! What is the value of their output? How do you put a price on it?
× BIG DATA	GDP is a national measure of the output of ALL of our firms. The data will have statistical inaccuracies due to the huge size. There will be errors, missing data and double counting. When you include the value of cars manufactured in the UK, you have probably already included the value of some of the component parts (tyres, steel, paint) made by UK suppliers too!
NOTHING TO DECLARE	There are lots of goods and services which are produced but which aren't recognised or declared. For example, the proceeds of crime, family carers, jobs done on "the quiet / off the books" for friends or family, DIY, growing your own food. These all involve production and have an output but typically aren't included.

Equally, there are limits to how well we can use it to compare our standard of living over time or between countries.

Two problems can be overcome quite easily.

SOLUTION 1 = <u>Work out GDP per capita (per head)</u>. This allows you to take into account population size.

(Think back to the video – Luxembourg had the highest GDP per head, but was nowhere near top in terms of its overall size of GDP)

SOLUTION 2 = <u>Use "real" values.</u> These are values where the rate of inflation has been removed. The inflation rate is how much prices rise as a percentage. If the inflation rate is 2.5%, that means that across the economy, on average, the price of goods and services has increased by 2.5%. Remember, GDP is the money value of all the goods and services we have produced in a year. We get the money value from their price. However, when we say that we want GDP to rise, what we actually want is for it to rise due to more goods and services being produced NOT the same number being produced at a higher price. So if we want to see if our economy and standard of living have grown, we must use real data – we must take off price rises from last year. Use real NOT nominal data.

	NOMINAL GDP
Year 1	£100 bn
Year 2	£105 bn

It looks like the country's economy has grown. £5bn more goods and services have been produced.

HOWEVER, the data isn't real. Inflation needs to be taken into account. Prices rose by 5% between year 1 and year 2. GDP also rose by 5%! The economy actually didn't grow –it produced the same amount of goods and services, but



There are many other limits to using GDP as an indicator of standard of living, but it is still our main indicator of economic welfare!

OUALITY OF GOODS	While quality increases over time, price tends to fall. Think about
	computers: how expensive they were when they were first sold and
	their limited capacity but how cheap and technologically advanced
	they are now. They contribute less to our GDP but are we actually
	worse off when they are so much better?
WHAT COUNTRIES PRODUCE	During World War 2 the UK's GDP was incredibly high. It was
	producing huge amounts of guns, arms, tanks etc. However, people
	certainly didn't have a high standard of living. People struggled to
	get the things they needed and were living under rationing.
	Equally a country producing lots of consumer goods and services for
	people to enjoy will improve their citizens' standard of living now,
	but what about the future? What if it hasn't been producing the
	machinery and technology needed for production in years to come?
WORKING HOURS	Countries with high GDP may have populations which work really
	long hours and have little leisure time. Most of their time goes into
	the production of goods and services. Does that have an impact on
	their quality of life?
POLLUTION AND SUSTAINABILITY	Many countries with fast rising GDP have issues with air, noise and
	water pollution, and are fast using up non-renewable resources.
	Firms produce huge amounts of goods but have little regard for the
	environment. Does that have an impact of citizens' quality of life
	now and in the future?
GDP PER HEAD	This is an average. If this goes up or down, do we really think that
	everyone is affected equally? Income is NUT shared equally across
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TED Talk: Why economists worry about the wrong things

https://www.economist.com/briefing/2016/04/30/the-trouble-with-gdp

https://www.tutor2u.net/economics/reference/what-is-gdp-and-why-is-it-bad-for-us

TOPIC 4: ALTERNATIVE MEASURES OF STANDARD OF LIVING (MACROECONOMICS)

Standard of living is a measure of our economic welfare. It's an indicator of our wellbeing and the quality of our life.

You should have picked up that while GDP is our main measure of quality of life, it has its problems. Most recently, it has been criticised because it is based solely on money. Certainly being able to afford goods and services we need and want improves our standard of living, but does our quality of life just depend on having material things?

Several other measures of standard of living have been devised to include more factors.

Watch the following web link:

https://www.tutor2u.net/economics/reference/measuring-the-standard-of-living

Do some research into the different measures available. (Some are listed below) Find out what is included in each measure. Which countries are at the top and bottom of the measures? Where is the UK placed? Are the same countries performing well / poorly on each measure? Are you surprised by any of the results?

Measure	Factors Included	Best (Placed 1 st)	Worst (Placed last)	UK's Ranking?
Human Development Index (HDI)				
National Happiness Index				
Misery Index				
Happy Planet Index				
Better Life Index				
Genuine Progress Indicator				

TOPIC 5: EVALUATING ECONOMIC GROWTH (MACROECONOMICS)

When real GDP increases, an economy has produced more goods and services in a time period. We call this economic growth. Is this always a good thing though?

Watch the web link below:

https://www.tutor2u.net/economics/reference/benefits-and-costs-of-economic-growth

<u>Benefits</u>

- Rising employment levels
- Higher average incomes
- Higher living standards as able to afford more goods and services
- Fiscal dividends extra income, sales and profit tax revenues for the government (potentially leading to higher levels of public spending)
- Higher living standards due to more public spending by government e.g. broadband infrastructure, NHS, transport links etc
- Less poverty
- Increased life expectancy, less disease, higher levels of health
- Greater business confidence leading to more investment in technology, machinery etc to ensure even more production in the future
- Less government borrowing (so less interest to repay)
- Potential environmental gains richer countries can afford to invest in green / cleaner technologies

<u>Costs</u>

- Inflation (rising prices) due to higher levels of demand for goods and services because we are better off! If there isn't enough for us to buy, prices will rise.
- Increased pollution with negative impacts on our health and the environment
- Increased road congestion (adds to air pollution, leading to asthma etc)
- Depletion of natural resources (non-renewables used up and fewer other resources for future generations because too many are being used in production now)
- Less leisure time, stress and consequently poorer mental health because we are working longer and harder to produce more goods and services
- Diseases of affluence e.g. obesity we can afford more food and drink!
- Inequalities in income and wealth all the benefits of growth are not shared equally (some people gain more than others – check out how unequal the UK is in its income and wealth distribution)
- Regional differences e.g. larger gap between rich and poor areas (Middlesbrough and Stockton in the north-east haven't benefited from UK economic growth look at their life expectancies!)
- Crime due to more inequality
- Job losses via technological advances, automation (machinery replacing workers)





A possible task here, would be to produce a collage / mind-map of the pros and cons of economic growth with some real world examples, real supporting data etc. Have a read around the topic – find out about the UK's performance regarding some of these issues!

A-LEVEL DATA RESPONSE QUESTION

Below is an example of the sort of case study you would be presented with at A-level.

GDP and Living Standards

This just means that each country's GDP figure has been put into US dollars and adjusted to take into account purchasing power i.e. it has been recalculated based on what you could afford to buy. Clearly, the USA has a much larger GDP than both the UK and Costa Rica – but remember it is a much bigger country and you need to take into account population size! GDP per capita would be more helpful to us!

Extract A

Figure 1: Selected data for Costa Rica, UK and USA, 2015/2016 unless stated

	Costa Rica	UK	USA
GDP (PPP \$bn)	69.6	2 518.1	16 890.2
Population (millions)	4.9	64.7	321.8
Mean years of schooling	8.7	13.3	13.2
Infant mortality rate (under 5s per 1000 births)	9.7	4.2	6.5
Average annual increase (%) of the HDI (1990–2015)	0.7	0.6	0.3
Gini coefficient (average 2010–2015)	0.49	0.33	0.41
CO ₂ emissions (tonnes per capita)	1.6	6.2	16.1

The Gini coefficient tells us how unequally income is shared across a population. The number has to be between 0 and 1. The closer to 0 it is, the more equal society is. The closer to 1 it is, the more unequal society is. Clearly there is a bigger gap between the rich and poor in Costa Rica than in the UK!

Note, the other indicators which have been given to allow you to take into account the fact that people's standard of living / quality of life isn't just based on money. You looked at some of these previously like the Human Development Index (HDI). Here schooling, health, and pollution are considered

Extract B: What is GDP?

Imagine £50 notes stacked on top of each other, stretching almost 4500 kilometres into the sky. This fantastically large amount of money (more than £2 trillion) is the current estimated value of the UK's Gross Domestic Product (GDP).

GDP is the standard measure of the size and health of a country's economy but it is important to distinguish between nominal and real GDP. It's the way we measure and compare how well or badly countries are doing. In other words, it is the total value of the output of goods and services produced in an economy over a period of time. The higher the value of GDP, the bigger the economy. If injections into an economy's circular flow of income increase, then this may generate multiple increases in GDP, depending upon the size of the marginal propensity to consume.

Why is the measurement of GDP important? Well, it's a way of keeping track of how the economy is doing, and whether it is growing. We can also use it to measure one economy against other economies using

purchasing power parity exchange rates. If real GDP goes up, the economy is doing well; this is associated with higher incomes, more jobs and higher spending. If real GDP goes down, the economy is not doing so well; this is associated with falling incomes, lower consumption and a lower standard of living.

Extract C: A happy planet?

We are facing tough times. The crises that dominate the media today are set against a background of an increasingly unstable global economy, rising inequalities and the ever-present challenges of climate change. GDP growth on its own does not mean a better life for everyone, particularly in countries that are already wealthy. This growth of GDP may not reflect inequalities in material conditions between people in a country and does not value the things that really matter to people, such as social relations, health, or how they spend their free time.

The Happy Planet Index is one of the alternative ways of measuring what really matters: sustainable wellbeing for all. This year, Costa Rica has topped the Happy Planet Index for the third time, achieving relatively high life expectancy and wellbeing with a small ecological footprint. Costa Ricans generally have higher wellbeing than the residents of many rich nations and live longer than people in the USA (who are ranked 108th in the index). This is achieved with an impact on the environment which is much smaller than that of the USA or UK (ranked 34th).

Costa Rica is a world leader when it comes to environmental protection, with 99% of its electricity coming from renewable sources, and a commitment to becoming carbon neutral by 2021. They also abolished the army in 1949 and reallocated the defence budget to funding education, health and pensions, further enriching the lives of its citizens. Other measures of living standards, such as the HDI, do not rank Costa Rica quite so highly (66th compared to the USA in 10th position). This is because the HDI does not place as much emphasis on the environment compared to the Happy Planet Index.

Increasingly economic growth is incompatible with the planetary limits we are up against. Rising GDP may be a sign that we are using more of the earth's scarce resources. Some believe the Happy Planet Index gives a clearer picture of broader living standards and their sustainability.

QUESTIONS

- 1. Using the data in Extract A, calculate the GDP per capita for Costa Rica in 2015/2016 to the nearest dollar. [2 marks]
- 2. Explain how the data in Extract A indicate living standards may be higher in the UK than in the USA. [4 marks]
- 3. Explain 2 limitations to the use of GDP data when comparing standard of living between the three countries. [9 marks]
- 4. Extract B (lines 13–15) states 'If real GDP goes up, the economy is doing well; this is associated with higher incomes, more jobs and higher spending.' Using the data in the extracts and your knowledge of economics, assess the view that to improve the living standards of their citizens, governments across the world should prioritise achieving economic growth (i.e. the production of more goods and services). [25 marks]

Hopefully, you are in a position to be able to answer these questions. You have practised your numeracy. You understand what standard of living incorporates as a measure of our economic welfare and quality of life. You have some understanding of why the data isn't perfect, and are aware of the pros and cons of economic growth, so should be able to argue for and against it in the context of our wellbeing and welfare.

If you want to attempt to answer all or some of these questions, then you can certainly have a go!

MULTIPLE CHOICE QUESTIONS (MCQs)

A common form of assessment at A-level is multiple choice. Paper 3 includes 30 questions on any topic across the specification. Below are some MCQs which you can have a go at!

Q1.

Changes in real GDP are used to measure

Α	inflation.	$^{\circ}$
В	the level of employment.	$^{\circ}$
С	economic growth.	$^{\circ}$
D	the distribution of income.	$^{\circ}$

Q2.

An economy had nominal GDP growth of 8% last year, inflation of 5.5% and population growth of 2.5%. The approximate percentage change in real GDP per capita was

Α	-2.5	0	TIP:
в	0	0	growth first. Take the inflation rate away from nominal GDP.
С	+2.5	0	Next consider if real GDP per capital will have changed by
D	+5.0	0	comparing your answer to the population growth

Q3.

Which one of the following can be a benefit of economic growth?

A Depletion of natural resources	0
B Employees enjoying a better work-life balance	\circ
C Greater inequality	\circ
D Higher standard of living	\circ

Q4.

Which one of the following can be a cost of economic growth?

A	An increase in the level of employment	\circ
В	An improvement in life expectancy and health	\circ
С	A reduction in the level of inequality	\circ
D	A deterioration in the work-life balance of employees	0

Q5.

The graph below shows real growth rates (annual percentage change in real GDP) for advanced economies in 2004 and 2005.



Percentage change in real GDP

 $^{\circ}$

0

 $^{\circ}$

 \circ

From the graph, it can be inferred that

- A the USA had a higher growth rate in both years than any other advanced economy.
- **B** all economies shown in the graph had higher rates of growth in 2004 than 2005.
- **C** the UK had a higher rate of growth than the average for member countries of the euro area in 2004 and 2005.
- **D** all member countries of the euro area had lower average rates of growth in both years than Canada.

TIP:
Read the data carefully. A ruler will help!

Q6.

6. Which one of the following options shows the potential impact of economic growth on individuals, the economy and the environment?

	Individuals	The economy	The environment
A	Increase in absolute poverty	Increase in government tax revenue	Reduction in air quality
в	Reduction in the standard of living	Increase in inflation	Depletion of unrenewable resources
	Increase in overage		

TIP: A process of elimination will get you to the right answer. Every option on each row has to be correct for it to be the overall answer!

TOPIC 1: THE BASIC ECONOMIC PROBLEM (MICROECONOMICS)

The basic economic problem occurs because we have unlimited wants but our resources are scarce. Consequently, we as consumers, but also firms (and governments) have to make choices. When we make a choice, there is an opportunity cost. We give up or sacrifice the opportunity to have/do something by choosing an alternative.

Watch the web link below:

https://www.tutor2u.net/economics/blog/study-note-the-basic-economic-problem-scarcity-and-choice

TOPIC 2: PRODUCTION POSSIBILITY CURES / FRONTIERS (MICROECONOMICS)

The production possibility curve (PPC), also known as the production possibility frontier (PPF), is a key concept which scarcity and choice. The blue curve below is a PPC or PPF.



If the firm chooses to produce at A, it will produce 0S mobiles and 0T laptops. (THE DISTANCE FROM THE ORIGIN "0" TO THE LETTER)

If it decides to increase laptop production to 0V and MOVE TO point C on the curve, it must reduce its production of mobiles to 0U. It gives up S-U mobiles. This is the opportunity cost of producing more laptops – what it has sacrificed to get the extra laptops.

If it INSTEAD decides to increase mobile production from 0S (for example MOVE to point B on the curve), it must reduce its laptop production. The amount of laptops it gives up, is the opportunity cost of producing more mobiles. The axes labels represent individual products a business makes. The firm can produce mobile phones and laptops with the resources it has available. The PPC shows all the different combinations of mobile phones and laptops which a firm can produce <u>PROVIDED it used all of its</u> resources FULLY and EFFICIENTLY.

It can devote all of its resources to mobile phone production and produce OY at the top of the curve.

It can devote all of its resources to laptop production and produce 0X at the bottom of the curve.

It can produce various combinations of the two goods by allocating its resources in different amounts to the production of each good. These combinations are all points on the PPC, such as points A, B and C.

KEY LEARNING SUMMARY:

THE PPF SHOWS ALL THE DIFFERENT POSSIBLE WAYS IN WHICH SCARCE RESOURCES CAN BE ALLOCATED BETWEEN COMPETING USES! THIS INVOLVESMAKING A CHOICE AND THEREFORE AN OPPORTUNITY COST!

Watch the web link below:

TOPIC 3: CHANGES IN PPFs (MICROECONOMICS)

Mobile phones



INCREASED PRODUCTIVITY

If the firm is able to produce more mobile phones than it could previously, but laptop production remains unchanged the diagram looks like this.

The firm has become MORE PRODUCTIVE (better at) mobile production. Previously the maximum it could produce was 0Y, now it can produce 0Z. Perhaps there's a new piece of equipment for mobile phone production!

Mobile Phones



In the diagram above, our firm is now capable of producing less of both mobiles and laptops. Something has happened to reduce its productive potential – perhaps there was a flood which wiped out part of the factory, and damaged the machinery!

Mobile Phones



Mobile Phones



Laptops

In the diagram above, our firm is now able to produce more of both products equally. Perhaps, it's got more resources (e.g. labour, and machinery). Perhaps its existing inputs are better – labour has been trained or there has been an advance in technology improving machinery and equipment.

In the diagram to the left, our firm is suffering from a strike. It is capable of producing the blue curve (its PPF) when all of its resources are in their best use, but because some of its workers are on strike it cannot achieve its maximum potential. It is operating below capacity – inside the curve!

TOPIC 4: EFFICIENCY AND PRODUCTION POSSIBILITY FRONTIERS (MICROECONOMICS)

KEY-TERMS

PRODUCTIVE EFFICIENCY

A firm is productively efficient when it produces at LOWEST COST.

TECHNICAL EFFICIENCY

A firm must be technically efficient to be productively efficient. It means it is using the <u>LEAST AMOINT OF INPUTS /</u> <u>RESOURCES.</u>

Mobile Phones



Having read the key terms above, at which points is the firm productively and technically efficient?

Remember, the curve is made up of the possible combinations of the 2 goods which the firm could produce if it used all of its resources in their best possible use i.e. at any point on the curve, the firm is at its most efficient.

List the letters representing productive (and therefore also technical) efficiency.

At which points is the economy productively inefficient?

Remember, the curve is made up of the possible combinations of the 2 goods which the firm could produce if it used all of its resources in their best possible use i.e. at any point on the curve, the firm is at its most efficient. So, if it is operating inside the curve, it must be below efficiency!

List the letters representing productive inefficiency.

Which combinations of laptops and mobile phones are currently unattainable by the firm? (i.e. it can't produce these combinations with its existing resources)

List the letters representing combinations of mobiles and laptops which it can't produce.

What would be required to achieve these?

Watch the web link below:

https://www.tutor2u.net/economics/reference/production-possibility-frontier

At about 7 minutes, the instructor starts to use the PPF idea in a macroeconomic way – he talks about how many goods and services an economy (rather than a firm) can produce when all the firms in the country use all the resources available in their best possible use.

This is an example of the "synoptic" nature of some economics and how basic topics and models can help you to explain a whole range of things which happen every day in the real world.

EXAM STYLE QUESTIONS TO CONSIDER

A local authority has a limited sum of money to spend on two services, libraries and other local government services.

Draw a production possibility diagram showing the potential provision of these two services **and** assuming resources are fully employed, label a point X where no resources are used for libraries.

[4 marks]

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In economics, being precise is important. To get full marks here, you need to:

- · Give each axis an appropriate, accurate label
- · Draw a neat production possibility curve and label it as either PPC or PPF
- Follow the instruction as to where to place the "X".

1. The diagram below shows two production possibility frontiers (SR and ST) for an economy that produces consumer goods and capital goods.



All other things being equal, the movement of the production possibility frontier from ST to SR is most likely to indicate a decrease in

- A productivity in the production of pears
- **B** the resources employed in the production of pears.
- **C** the demand for pears.
- **D** the opportunity cost of the production of pears in terms of apples.
- 2. Choice is a necessary part of the basic economic problem because
 - A wants are finite.
 - **B** economic decisions involve an opportunity cost.
 - **C** resources are infinite.
 - **D** consumption creates bad spillover effects sometimes.
- 3. Choice is an important element in the basic economic problem because
 - A wants increase with income
 - B resources are distributed equally
 - C limited resources have alternative uses
 - D high demands lead to high prices

4. The diagram below shows a firm's production possibility frontier.



Which one of the following combinations of cars and mopeds, **A**, **B**, **C** or **D**, could be produced with the resources available?

- A Only W and Y
- B Only V, W and X
- C Only V, W, X and Y
- D V, W, X, Y and Z
- 5. A firm is productively efficient when
 - A it is operating at lowest cost.
 - B it cannot increase current production even if the demand for its products increases.
 - C output per worker cannot increase.
 - D an increase in production will decrease average costs.
- 6. A production possibility frontier illustrates
 - A the various combinations of output an economy will produce with its limited resources.

B the various combinations of output an economy is currently capable of producing with its limited resources.

- C the maximum output an economy will ever be capable of producing.
- D the various combinations of output which can be produced at zero opportunity cost to society.
- 7. A firm is always classed as productively inefficient if
 - A it can lower its average cost of production
 - B it is operating on its production possibility frontier
 - C it is technically efficient

8. The production possibility boundary below shows the possible combinations of fruit and wheat that a country could choose to produce.



The country is producing OF fruit and OK wheat. If it decides to increase fruit production to OG, the opportunity cost in terms of wheat would be

- A OJ.
- B JK.
- C OF
- D KL
- 9. Features of the fundamental economic problem include
 - A both unlimited resources and many wants.
 - B both trade-offs and sacrifices
 - C excessive profits for firms
 - D both scarce resources and limited wants.
- 10. A firm is operating on its production possibility. It is producing a combination of mobile phones and laptops. An increase in the production of mobile phones
 - A Will have no effect on the production of laptops
 - B Will increase production overall
 - C Will mean a reduction in laptop production
 - D Will mean the firm is no longer productively efficient

11. The table gives the production possibility schedule for televisions and radios.

Televisions	Radios
17	0
16	1
14	2
12	3
9	4
6	5
3	6
0	7

Currently the firm produces 12 televisions and 3 radios. It decides to increase radio production to 6. What is the opportunity cost in terms of televisions?

- A 9 B 3
- C 4
- D 12

12. The following diagram shows the production possibility frontier for an economy that produces bread and honey.



If the economy is initially at point W, then the opportunity cost of moving to point ${\sf X}$ is

Α	6 units of honey.	0
в	8 units of honey.	0
С	12 units of bread.	0
D	23 units of bread.	0

Further Work Beyond This Bridging Course

• This is a Youtube site which holds Tutor2u's "Head Start" videos. These are lessons for students hoping to study A-Level Economics in September. They get added to weekly – if there are things which catch your attention, you can certainly have a look beyond this bridging course.

https://www.youtube.com/watch?v=2Nq8LN3XGQA&list=PLp8BSCLLWBUDsgklb8sUm8wXb5M3r0t Ad&index=1

- Keep up to date with the news.
 - Watch news programmes.
 - Look at news websites they often have sections on the economy.
 - e.g. BBC news, Sky news
 - The Economist magazine has a free subscription at the moment, allowing you to access a few articles of your choice monthly.
- The Tutor2u website is a fantastic source of information too. Occasionally, take a look at its
 <u>economics blog</u> it's updated with all the current economics stories. Obviously there's loads
 at the minute due to the unprecedented impact of Covid 19 on firms and economies. There
 are also quizze, webinars and notes on all sorts of topics.
- Perhaps, produce a summary of the recent past, current and predicted economic performance of the UK and a couple of other major economies. You could look at things like:
 - Unemployment
 - Economic growth
 - Inflation
 - Interest rate
 - Exchange rate
 - Perhaps, look at the list of questions at the start of the booklet, or take a look at the AQA specification. Choose something which interests you and do some research!

e.g. Why do Premier League footballers earn more than nurses?

e.g. What is a demerit good? What does the government do to put us off from consuming them?

e.g. What are the UK's major exports and imports? Who do we trade with most? How might that change after Brexit?