

SUBJECT and GRADE:	ECONOMICS GRADE 10	
TERM 2:	Week 6	
TOPIC:	Micro Economics	
LESSON	Production Possibility Curve.	
AIMS OF LESSON:	<p>I must be able to:</p> <ul style="list-style-type: none"> • Understand the concepts regarding the production possibility curve • Interpret data given in a schedule • Draw and interpret the PPC graph 	
INTRODUCTION:	<p>The Production Possibility Curve is linked to content covered in:</p> <p>Gr.8 EMS – Needs and Wants. Gr.9 EMS- Scarcity and Choices Gr.10 Economics: Basic Economic Problem</p>	
KEY CONCEPTS: <i>Make flashcards by writing the concepts on the one side and the explanations on the other side. Go through it daily.</i>	CONCEPT	DESCRIPTION
	1. Production Possibility Curve	It shows the alternative combinations of any two goods or services that can be produced if all the available resources are fully and efficiently used.
	2. Resources	Land, Labour, Capital, Entrepreneurship
	3. Scarcity	Scarcity is illustrated by all the points to the right of the curve (outside the curve). They are impossible because our resources are scarce (not enough)
	4. Choices	Choice is illustrated by the need to choose among the available combinations along the curve. (on the curve)
	5. Opportunity Costs	It is the value of the best alternative that could have been chosen but that was not chosen. The sacrifice you make.
	6. Efficiency	Is illustrated by all the points on the production possibility curve
	7. Inefficiency	Production points inside the Production Possibility Curve. Waste of resources occurs.
SKILLS:	<p>At the end of the lesson I should be able to:</p> <ol style="list-style-type: none"> 1. Define the concept <i>production possibility curve</i>. 2. Briefly describe relevant concepts related to PPC. 3. Answer relevant questions on PPC schedule and/or graph. 	

NOTES:



Carefully read through the notes.

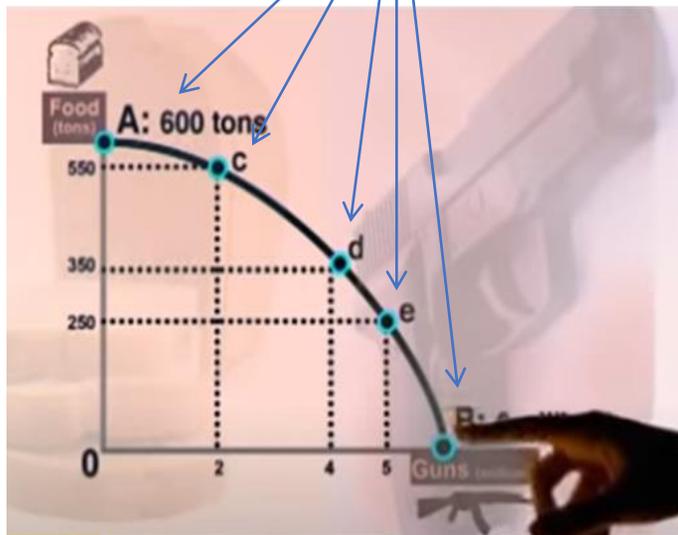
Rewrite it in your notebooks.

PRODUCTION POSSIBILITY CURVE

The PPC illustrates:

- Choice
- Scarcity
- Opportunity Cost

→ **Definition:** It shows the **alternative combinations (choices)** of any two goods or services that can be produced if all the available resources are fully and efficiently used.



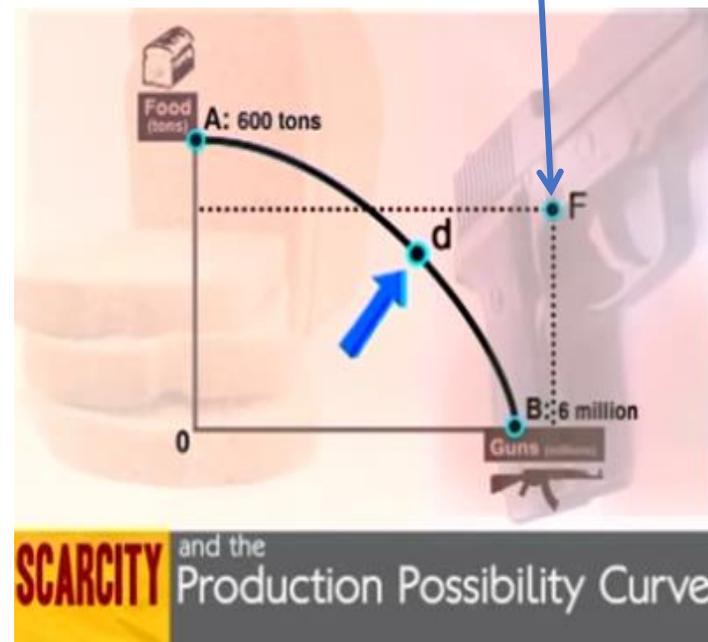
Resources are being used EFFICIENTLY. No wastage of resources occurs.

The Production

- Combination A: 600 Bread and 0 Guns
- Combination C: 550 Bread and 2 Guns
- Combination D: 350 Bread and 4 Guns
- Combination E: 250 Bread and 5 Guns
- Combination B: 0 Bread and 6 Guns

SCARCITY / IMPOSSIBLE POINT

- Scarcity is illustrated by all the **points to the right of the curve (outside the curve)**. They are **impossible** because of **scarce resources**.
- Our resources are **not enough to produce at that point**.
- It is also called the **unattainable point**.
- In our example **POINT F** is unattainable
- To produce at that point we need to acquire more resources and better technology.



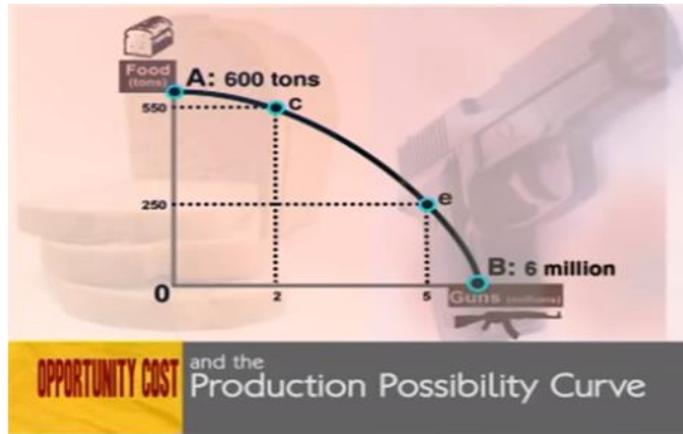
TAKE NOTE!!!!



Opportunity Cost for Bread can also be calculated. We work from last column upwards. E.g To produce 250 tons of bread we need to sacrifice 1 million guns. We move from point B to point E. $(6 - 5) = 1$ million guns

OPPORTUNITY COSTS:

- It is the value of the beste alternative that could have been chosen but that was not chosen.



Positions	Bread	Guns	Opportunity Cost for guns
A	600	0	0
C	550	2 m	50 tons bread
D	350	4 m	100 tons bread
E	250	5 m	200 tons bread
B	0	6 m	250 tons bread

Explanation:

Move from Point A to C (want to produce 2 m guns)

To produce 2 million guns, we need to produce less bread. We need to produce 50 tons less bread. $(600 - 550 = 50)$

Our opportunity Cost is 50 tons of bread

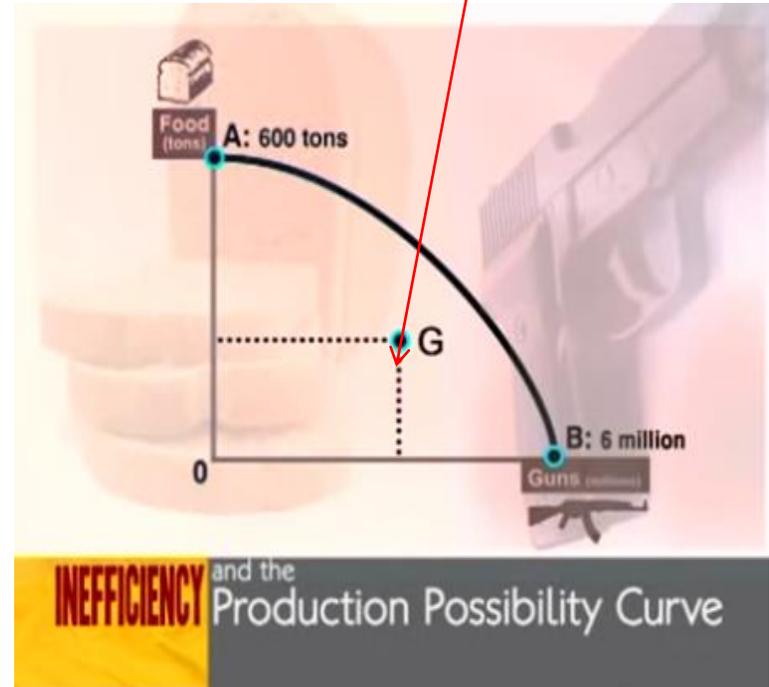
Move from Point C to Point E (to produce 5 m guns)

To produce 5 million guns, we need to produce less bread. We need to produce 300 tons less bread. $(550 - 250 = 300)$

Our opportunity Cost is 300 tons of bread

INEFFICIENCY

- Production **points inside the Production Possibility Curve.**
- **Waste** of resources occurs. Resources are not utilized to its maximum.
- **Point G** represents INEFFICIENCY.



Here is an example of how questions can be asked. Study it carefully and attempt the activities that follows



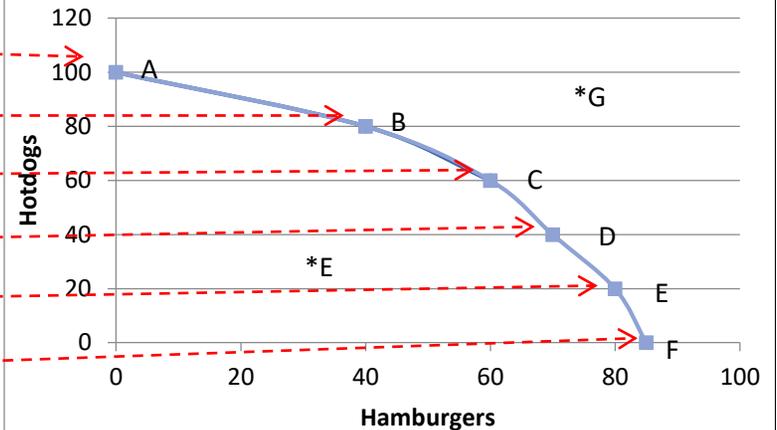
EXAMPLE

Possibility	Hotdogs	Ham burgers
A	100	0
B	80	40
C	60	60
D	40	70
E	20	80
F	0	85

Possible Questions

- How many hamburgers are produced at point A
→ 0
- How many hotdogs are produced at point B?
→ 80
- What is produced at point C?
→ 60 Hotdogs and 60 Hamburgers
- Explain why it is not a good idea to produce at point E?
→ It would be an inefficient use of resources / Some resources are being wasted.
- Why is production at point G not possible?
→ There are not enough resources to produce outside the PPC.
- Calculate the opportunity cost, in terms of hotdogs, of producing at point B.
→ $(100-80) = 20$ hotdogs

Production Possibility Curve



7. Why is production at point E regarded as inefficient?

→ Resources are being wasted.

8. How can production at point G be achieved?

→ More resources and technology need to be used in the production process.

9. Calculate the opportunity costs to produce 20 hotdogs?

→ $85 - 80 = 5$ hamburgers

(Explanation: If we want to produce more hotdogs, we need to produce less hamburgers – We move from point F to point E)

**ADDITIONAL
RESOURCES:**

Econ Gr.10 Core Notes
Econ Gr. 10 Answer Series
Any other Caps Approved Econ Gr.10 Textbook
WCED EPortal(<https://wcedportal.co.za>)

**CONSOLIDATION
ACTIVITIES:**



*Answer these
questions in your
workbook.*

1. Choose only the correct letter (A – D):

- 1.1 The curve that shows all the different combinations of two products, which will provide consumers with equal levels of satisfaction.
- A. Budget.
 - B. Indifference.
 - C. Supply.
 - D. Production possibility. (2)
- 1.2 When the economy is producing at levels under the maximum production levels, there is/are ...
- A unemployed resources.
 - B high economic growth.
 - C optimum production combinations.
 - D production possibility curve (2)

2. Choose a description from COLUMN B that matches an item in COLUMN A:

COLUMN A	COLUMN B
2.1 Opportunity Cost	A. A graph that shows the combination of two products that can be produced using all the available resources efficiently.
2.2 PPC	B. The value of the alternative that you did not choose and gave up or Sacrificed when you had to make a choice
2.3 Efficiency	C. When resources are being wasted.
2.4 Inefficiency	D. When resources are being utilized to its maximum potential

(2x1) (2)

**CONSOLIDATION
ACTIVITIES:**



*Answer these
questions in your
workbook.*

3. Study the information below and answer the questions that follow:

PRODUCTION POSSIBILITIES

The production possibilities in the table below indicate the potential production of a hypothetical farmer if all his resources are used efficiently. The farmer produces apples and pears. When he uses all his resources to produce apples, he cannot produce pears. When he uses all his resources to produce pears, he cannot produce apples. He does not have enough resources to produce the maximum number of apples and pears. Therefore, the farmer must choose a combination of apples and the maximum number of pears to produce. The most efficient combination with the given resources will be indicated by a production possibility curve (PPC). A production possibility curve is a diagram that shows what combination of two different goods could be produced efficiently given the available limited supply of the factors of production.

The maximum combinations of apples and pears that the farmer can produce in a year:

Different combinations	Apples	Pears
A	100	0
B	80	20
C	60	25
D	40	30
E	20	35
F	0	40

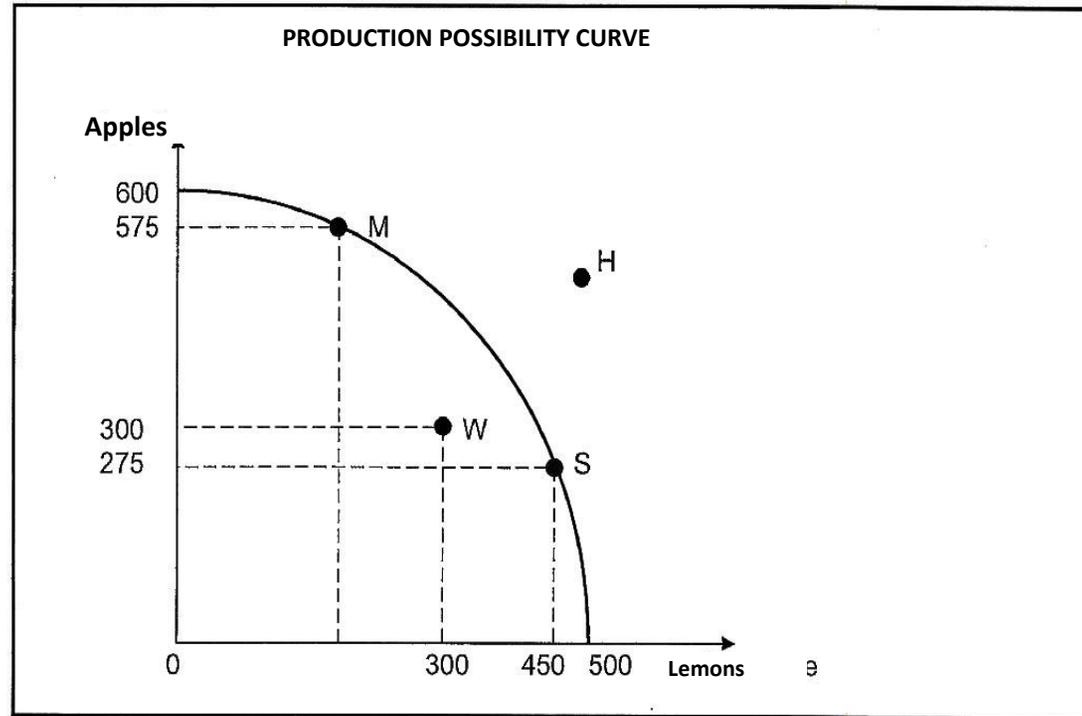
- 3.1 What is shown by the table above? (1)
- 3.2 How many apples will be produced if the farmer uses all his resources for the production of apples? (1)
- 3.3 Name any TWO of the resources referred to in the extract. (2 x 1) (2)
- 3.4 What is meant by efficient use of resources? (2)
- 3.5 Use the information from the table to construct a PPC. (4)

**CONSOLIDATION
ACTIVITIES:**



*Answer these
questions in your
workbook.*

4. Study the graph below and answer the questions that follow:



- 4.1 How many lemons will be produced if all resources are allocated to the production of lemons? (1)
- 4.2 How many apples will be produced if all the resources are allocated to the production of apples? (1)
- 4.3 What is the purpose of the production possibility curve? (2)
- 4.4 Is production obtainable at Point H? Give a reason for your answer. (2)
- 4.5 Which point shows inefficiency? Substantiate your answer. (4)