

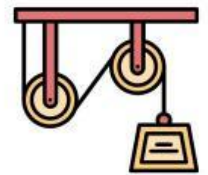
Minds-On
Activities



STUDENT WORKSHEET SIMPLE PLANE



BY: NADYA NURLAYLI HASANAH



STUDENT WORKSHEET SIMPLE PLANE



Name :

Class :

Absent Number :



- **Basic competencies**

1. Explain the concept of simple aircraft, and its application in everyday life

- **Learning objectives**

1. Students can explain the meaning of Simple Planes
2. Students are able to identify types of simple aircraft
3. Students are able to give examples of simple areas in everyday life
4. Students are able to be creative, think critically and be religious

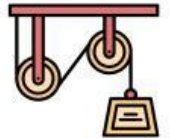


STUDENT WORKSHEET SIMPLE PLANE



• Instructions for filling out the Student Worksheet

1. Pray first before working on the Student Worksheet
2. Read and understand material about simple planes
3. Answer the questions correctly. Students can look for supporting information from books or literature sources
4. Draw conclusions based on the practical experiments that have been carried out
5. Present the results of the Student Worksheet answers obtained in front of the class



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- **Short Material**



Jungkat jungkit

Sumber: freepik



Gunting



When carrying out activities, we will encounter various types of tools that can help human work to be used more quickly in work with various types of tools that are different and have different uses. So that our work can be completed quickly, workers usually use various types of tools according to the needs of the work. There are various types of Simple Planes that can be used to make work easier.





STUDENT WORKSHEET SIMPLE PLANE



• Activity 1

Based on the information you have obtained, answer the following questions.

1. Explain the meaning of a simple plane?

Answer: A simple machine is a tool or mechanism used to make human work easier by changing the force applied to an object. This tool works based on the basic principles of mechanics, with the aim of reducing the effort or force required to do work.

2. Name and explain the types of simple planes that you know!

Answer:

- **Pulley** is a simple machine in the form of a grooved wheel connected to a rope, used to make work easier by changing the direction of force when pulling or lifting a load. Types of pulleys include fixed pulleys, which have a fixed position, free pulleys, which can change their position, and compound pulleys, which are a combination of fixed and free pulleys. Examples of the use of pulleys are in bucket well systems or to hoist flags at ceremonies.
- **Pivot** wheel is a simple machine that uses wheels with an axle to move objects more easily. An example is a trolley that makes it easier to move cupboards.
- **Inclined plane** is a flat surface placed at an angle to minimize the force required. Examples are winding roads in the highlands or the use of an inclined plane when cutting vegetables with a knife.
- **Lever** is a simple device that utilizes force to change the direction of a force. Types of levers include those whose fulcrum is between the load and the force, between the force and the fulcrum, or between the load and the fulcrum. Examples of leverage are a shovel to lift sand or scissors to cut paper.



STUDENT WORKSHEET

SIMPLE PLANE



• Activity 2

Based on the activities below, identify the types of simple machines used!

No.	Activities	Simple Type Of Aircraft	Reason
1.		Second group levers	Because in the second class of levers, the load point is between the fulcrum and the power point.
2.		Free Pulley	Because the pulley can rotate or move freely without obstacles. A free pulley is a type of pulley that can rotate around its axis without restricting its movement.
3.		Inclined plane	Because the structure of the stairs forms a certain inclined plane or slope. Stairs are considered to be simple inclined plane types that help overcome gravity and facilitate vertical movement.
4.		Axle Wheel	Because bicycles have wheels that rotate around an axis. The axle is located in the middle of the wheel and connects the front and rear wheels.



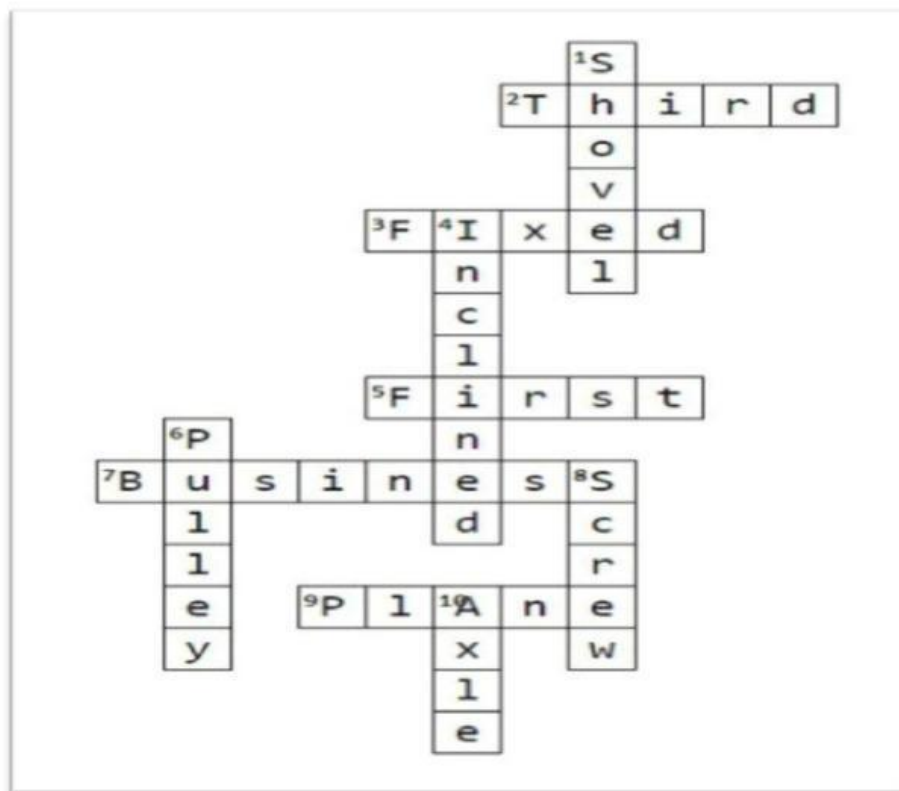
STUDENT WORKSHEET

SIMPLE PLANE



• Activity 3

Complete the crossword puzzle below!



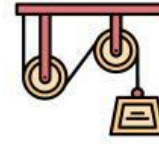
Across

2. A lever whose power point is between the load and the support is a type of lever
3. One type of pulley is a pulley
5. A lever whose fulcrum is located between the load and the force is a type
7. Simple machines are tools used to make things easier
9. Simple tools to help carry out activities are called..... Simple

Down

1. One example of a lever used to take land
4. A flat plane that is placed at an angle or at a certain angle called a plane
6. A simple type of machine in the form of a grooved wheel is
8. One example of using an inclined plane is
10. A wheel is a simple machine that uses wheels and has an axle on which the wheels rotate

STUDENT WORKSHEET SIMPLE PLANE



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Kristianingsih, L. D., Suardana, I. N., & Juniartina, P. P. (2022). Pengembangan Lembar Kerja Peserta Didik IPA SMP Berbasis Problem Based Learning pada Materi Usaha dan Pesawat Sederhana. *Jurnal Pendidikan dan Pembelajaran IPA Indonesia*, 12(1), 38-48.

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