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Class: V

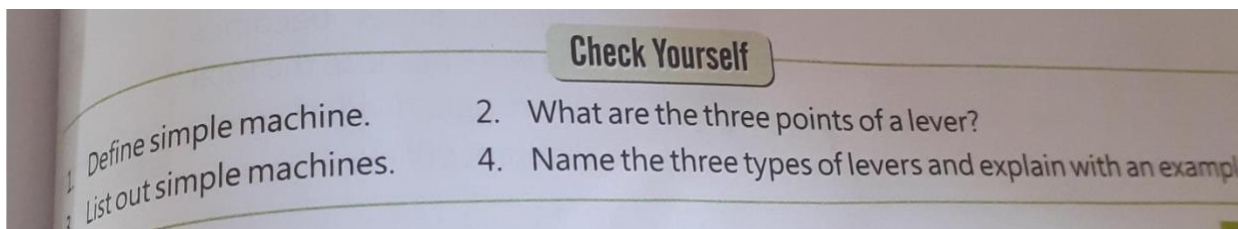
Sub.tec: Naina paswan

Subject: SCIENCE

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BASED ON N.C.E.R.T PATTERN

LESSON: 13. SIMPLE MACHINES



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Ans 1. simple machine: A machine with few or no moving parts that is used to make work easier (provides a mechanical advantage). For example, a wedge, wheel and axle, lever, inclined plane, screw, or pulley.

Ans 2. The way levers operate is by an effort applied at a point, which moves a load at another point through a balance point called the fulcrum. It is the relative positions of these three points - the

effort, the load and the fulcrum - that distinguishes the type or class of lever.

Ans 3. The simple machines are the inclined plane, lever, wedge, wheel and axle, pulley, and screw.

Ans 4. There are three classes levers, according to the position of the fulcrum. Class 1 has the fulcrum placed between the effort and load. Class 2 has the load between the effort and the fulcrum. Class 3 has the effort between the load and the fulcrum.

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Examples

- . Tweezers.**
- . Stapler.**
- . Mousetrap.**
- . Broom.**
- . Hockey stick.**

Check Yourself

1. Why is a slide known as an inclined plane ?
2. What is a pulley ? What are its two types ?
3. Differentiate between the two types of pulleys.
4. In what ways wheel and axle are useful in your daily life ? Mention any four.

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Ans 1. A slide is another example of an inclined plane. Although largely used for recreational purposes, the slide is an inclined plane also used to lower heavy objects to a flat surface. Rather than dropping the object, it is slowly descended down the slide with less energy used and also a much safer result.

Ans 2A pulley is a simple machine with a grooved wheel that a rope or chain moves through. The rope carries the load, or object that needs to be moved. There are two main types of pulleys: ... The rope is attached to a fixed place like a ceiling. A movable pulley needs less effort force to move the load than a fixed pulley.

Ans 3. There are three main types of pulleys: fixed, movable, and compound. A fixed pulley's wheel and axle stay in one place.

Ans 4. Wheel and axle uses include lifting heavy objects, moving people quickly, and moving parts of a complex machine.

TO BE CONTINUE.....
