E-mail: Info@saolympiads.co.za website : www.saolympiads.co.za

GUIDE

GRADE 8

Technology

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A. Paper structure for the olympiad

Multiple Choice questions and short answer questions.

B. How it aligns with the curriculum?

CAPS topics including:

- STRUCTURES (Frame structures, Types of forces acting on structures)
  (Structures that span over space and structural failure)
- GRAPHIC COMMUNICATION (Purpose of graphics, conventions and scale)
  (Design, make and communication)
  (Enhancing drawings)
- MECHANICAL SYSTEMS AND CONTROL (The wedge, gears and cams)
- PROCESSING (positive and negative impact of technology on society)
  (Recycle and re-use waste paper and cardboard)
- MECHANICAL SYSTEMS AND CONTROL (Gear systems and types)
  ((Mechanical advantage calculations for gears)
- ELECTRICAL SYSTEMS AND CONTROL (Renewable and non-renewable
  Energy souces in South Africa)

C. How it goes beyond?

The olympiad includes some general knowledge questions based on technological aspects and current affairs.

D. Sample questions

1. Multiple Choice Questions

1. The speed of the driven gear divided by the speed of the driver gear.

   A Force Ratio
   B Velocity Ratio
   C Revolution per minute
   D Ratio

2. The teeth of the gears are called:

   A Idler
   B Cogs
   C Mesh
   D Teeth

3. How many “Tabs” does a development of an open container have?

   A 6
   B 7
   C 12
   D 8

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2. Short answer questions

1. Decide whether the following statement is true or false . Most of our electricity Comes from steam –powered generators.
2. What do we call the force that pulls the material in different directions along the vertical axis?
3. What are the fibres that remain after all the sugar is removed from sugarcane, called?