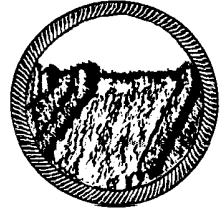


Science & Technology Category

Engineering



Complete one of the following :

1. Visit an industrial plant, an electricity generating plant, a food processing or packing plant, a sewage treatment plant, a mine, or another centre of engineering activity. Report on the visit, the equipment used, the end product of the process, and the good it does for the community. Include sketches, photos if possible, and a model or mock-up of the process to show that you understand the basic ideas involved. Detail what safety devices and regulations you noticed during your visit.

2. Show how to work and repair any one of the motor power energy sources such as internal combustion engines (gasoline or diesel), turbine drives, steam engines, rockets, or electric, wind, or water drives. Discuss the engineering principles involved, and show that you have a good knowledge of the safety measures required for the energy source.

3. As a draftsman, show that you can make scale drawings in third angle, orthographic projection (three views) of simple pieces of machinery or machine parts. Properly finish the drawings with border, title, and views described. Show examples of tracings you have done of an electrical or electronic circuit, an architectural drawing, or an engineering drawing. Discuss the merits of the various ways of copying these drawings for further use.

Science



1. Show by your participation in a science fair, exposition, open house, or private demonstration that you have an interest and skill in a scientific subject beyond the level expected of you in your school work. Demonstrate by devices, models, charts, collections, or in the field, the aspect that interests you. Explain the background, and show how it relates to the rest of the world or other fields of science.
