



Activity 3.1

DIFFERENT USES OF ENERGY

Aim:

When you have completed this activity you will have traced the path of different uses of energy back to the source.

| Source of energy | | Form of energy use |
|-------------------------------------|---|--------------------|
| Non-renewable energy sources | | |
| | | Heat energy |
| 1. coal, oil, gas | Heat energy – generator – electricity | Light energy |
| 2. coal, oil, gas | Burning for direct use | Mechanical energy |
| | Chemical energy | |
| | Heat, light, sound etc | |
| Renewable energy sources | | |
| 3. sun | Solar radiation – object | Heat energy |
| 4. sun | Solar radiation – solar cell | Electrical energy |
| 5. wind | Mechanical - generator | Electrical energy |
| 6. wind | Direct use | Mechanical |
| 7. hydro | Mechanical – generator - electricity | Heat, light etc |
| 8. sugar | Chemical | Mechanical |
| 9. wood | Burning for direct use | Heat, light etc |
| 10. wood | Heat - generator | Heat, light etc |
| 11. bagasse | Heat energy – generator - electricity | Heat, light etc |
| 12. manure | Methane – heat energy – generator - electricity | Heat, light etc |
| 13. rubbish | Methane – heat energy – generator - electricity | Heat, light etc |
| 14. tides | Mechanical – generator - electricity | Heat, light etc |
| 15. geothermal | Heat energy – generator - electricity | Heat, light etc |



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Procedure:

Using the information from the table above, and from the video, classify the following according to their source of energy (using the number) and the final form of energy used.

| Example: paddlewheel steamer | 9 | mechanical (mainly) |
|--|--------|---------------------|
| | Number | Form of energy use |
| (a) Botanical gardens greenhouse during the day | | |
| (b) Clothes drying in the sun | | |
| (c) Computer switched on, with screen saver working | | |
| (d) Diesel locomotive going to Toowoomba | | |
| (e) Windmill pumping water from underground | | |
| (f) Grass growing in the sunshine | | |
| (g) Hang gliders over Mt Tamborine | | |
| (h) Hot water panels on the roof on a sunny day | | |
| (i) Rubbish dump recycling unit | | |
| (j) Motor car driving up a mountain | | |
| (k) Motor car battery used to start an engine | | |
| (l) North Keppel recycling unit | | |
| (m) Remote navigation equipment on top of a mountain | | |
| (n) Rocky Point Sugar Mill | | |
| (o) Solar car being driven by Grandpa | | |
| (p) Using a hair curling appliance | | |
| (q) Steam train taking tourists for a ride | | |
| (r) Toaster burning the toast | | |
| (s) Yourself walking to school | | |

