# Natural Sciences and Technology · Grade 6

Memorandum · Term 3–4

TOTAL
**44**
MARKS

## Marking guidelines

1. Award the full mark for a correct answer, even if the learner words it differently.
2. Accept any scientifically correct answer, including one not given in the memorandum.
3. Where a question asks for two or more items, award one mark per correct item.
4. For diagrams, award the mark if the label points at the correct part, even with a spelling error.
5. Do not deduct marks for spelling unless the word takes on a different scientific meaning.

| Question | Answer | Marks | Marking note |
|---|---|---|---|
| **QUESTION 1 · Multiple choice questions · 6 marks** | | | |
| **1.1** | a. Saturn | **1** | |
| **1.2** | b. A steel nail | **1** | |
| **1.3** | c. as fuel in power stations | **1** | |
| **1.4** | a. About 28 days | **1** | |
| **1.5** | b. Mars | **1** | |
| **1.6** | c. a motor | **1** | |
| **QUESTION 2 · Short questions · 9 marks** | | | |
| **2.1** | Toaster = heat; Doorbell = sound; Torch = light; Drill = movement | **4** | *1 mark each.* |
| **2.2** | a. circuit (electric circuit); b. plants (accept trees, plants and ferns); c. 24 | **3** | *1 mark each.* |
| **2.3** | The kettle (1). It needs much more electricity (power) than the radio, because it heats water; heating appliances use the most electricity (1). | **2** | |
| **QUESTION 3 · Electric circuits · 10 marks** | | | |
| **3.1** | Cell (battery); wire (conducting wire); buzzer | **3** | *1 mark each.* |

| Question | Answer | Marks | Marking note |
|---|---|---|---|
| **3.2** | 1 mark: two correct cell symbols joined end to end. 1 mark: correct bulb symbol and open-switch symbol. 1 mark: wires drawn as straight lines making one loop (broken only at the switch). | **3** | |
| **3.3** | Copper is a very good conductor, so electricity flows through it easily (1). Plastic is an insulator, so it stops electricity from reaching people and prevents shocks (1). | **2** | *Accept both 'insulator' and 'non-conductor'.* |
| **3.4** | Any two: the cells are flat (used up); the bulb is broken (blown); a wire or contact is loose or broken, so the circuit is not complete; the switch does not close properly; the cells are in the wrong way round. | **2** | *1 mark each.* |
| **QUESTION 4 · Energy generation · 8 marks** | | | |
| **4.1** | B, A, D, C | **4** | *1 mark for each letter in the correct position.* |
| **4.2** | Advantages (2), any two: sunlight is free and renewable; no coal is burnt, so there is no air pollution; lower electricity bills; electricity is still available when the power is off. Disadvantages (2), any two: expensive to buy and install; they make little electricity on cloudy days and none at night; batteries are needed to store electricity; they can be stolen or damaged. | **4** | *1 mark each.* |
| **QUESTION 5 · The Solar System · 11 marks** | | | |
| **5.1** | Venus = rocky; Saturn = gas; Uranus = gas | **3** | *1 mark each.* |
| **5.2** | a. Pluto (also accept Ceres, Eris). b. Between Mars and Jupiter. c. It is much smaller (also accept: it has not cleared other objects out of its orbit). | **3** | *1 mark each.* |
| **5.3** | Any two: the Moon has no air (atmosphere); it has no liquid water; nothing lives on it; it is much smaller; it is covered in craters. | **2** | *1 mark each. Do not accept 'the Moon has no light of its own' (neither has the Earth). Do not accept 'it revolves around the Earth' (given in 1.4).* |

| Question | Answer | Marks | Marking note |
|---|---|---|---|
| **5.4** | a. The Sun (1). b. The half of the globe facing the torch is lit: there it is day; the half facing away is dark: there it is night (1). As the globe turns (rotates), each place moves from day into night and back again (1). | **3** | *1 mark for a; 2 marks for b.* |

**Total** **44 marks**



Free quizzes

## Finished this test? Keep practising online!

More than 12 000 free questions for Grades 4 to 7, in every subject and aligned to CAPS. After every answer your child gets a short explanation. No registration needed, and it works on a phone.

**meerkatskool.co.za**

**Scan with your phone to start right away**

## A small request from us

Thank you for supporting MeerkatSkool! We are a small South African business, and every paper is put together with great care.

This test and memo are a free sample: feel free to share them with other parents and teachers. Ask us about the full booklet: meerkatskool.co.za or WhatsApp 066 462 7629.

**Thank you!**
*The MeerkatSkool team*


**Free quizzes**
meerkatskool.co.za

**Email**
info@meerkatskool.co.za

**WhatsApp and calls**
066 462 7629


### Help us improve

Found a mistake in this test? WhatsApp us straight away. We fix it within 24 hours and send you the new version.

**Scan to WhatsApp us · 066 462 7629**