



education

Department of
Education
FREE STATE PROVINCE

PRACTICAL TASK *PRAKTIESE TAAK*

GRADE/GRAAD 10

PHYSICAL SCIENCES *FISIESE WETENSKAPPE*

MEMORANDUM

JUNE/JUNIE 2017

TIME/TYD: 1 HOUR/UUR

MARKS/PUNTE: 40

This memorandum consists of **THREE** pages.
Hierdie memorandum bestaan uit DRIE bladsye.

QUESTION 1 / VRAAG 1

- | | | | |
|-------|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-----|
| 1.1.1 | Magnetic ✓ | Magneties ✓ | (1) |
| 1.1.2 | Non-magnetic ✓ | Nie-magneties ✓ | (1) |
| 1.1.3 | Non-magnetic ✓ | Nie-magneties ✓ | (1) |
| 1.2.1 | Tripod/Stand ✓ | Driepoot/Staander ✓ | (1) |
| 1.2.2 | Bunsen burner ✓ | Bunsenbrander ✓ | (1) |
| 1.3.1 | Black/dark grey ✓ | Swart/donkergrys ✓ | (1) |
| 1.3.2 | Yellow ✓ | Geel ✓ | (1) |
| 1.4.1 | Exothermic ✓ | Eksotermies ✓ | (1) |
| 1.4.2 | Heat is released. ✓ | Hitte word uitgegee. ✓ | (1) |
| 1.5 | Iron sulphide ✓ | Ystersulfied ✓ | (1) |
| 1.6 | $\text{Fe} + \text{S} \rightarrow \text{FeS}$ ✓ Balance/Balanseer. Ratio/Verhouding 1:1:1 ✓ | | (3) |
| 1.7 | One of: ✓
Handle hot equipment with tongs.
Wear safety goggles.
Wear protective clothes. | Een van: ✓
Hanteer warm apparaat met tang.
Gebruik veiligheidsbril.
Dra beskermende klere. | (1) |

[14]

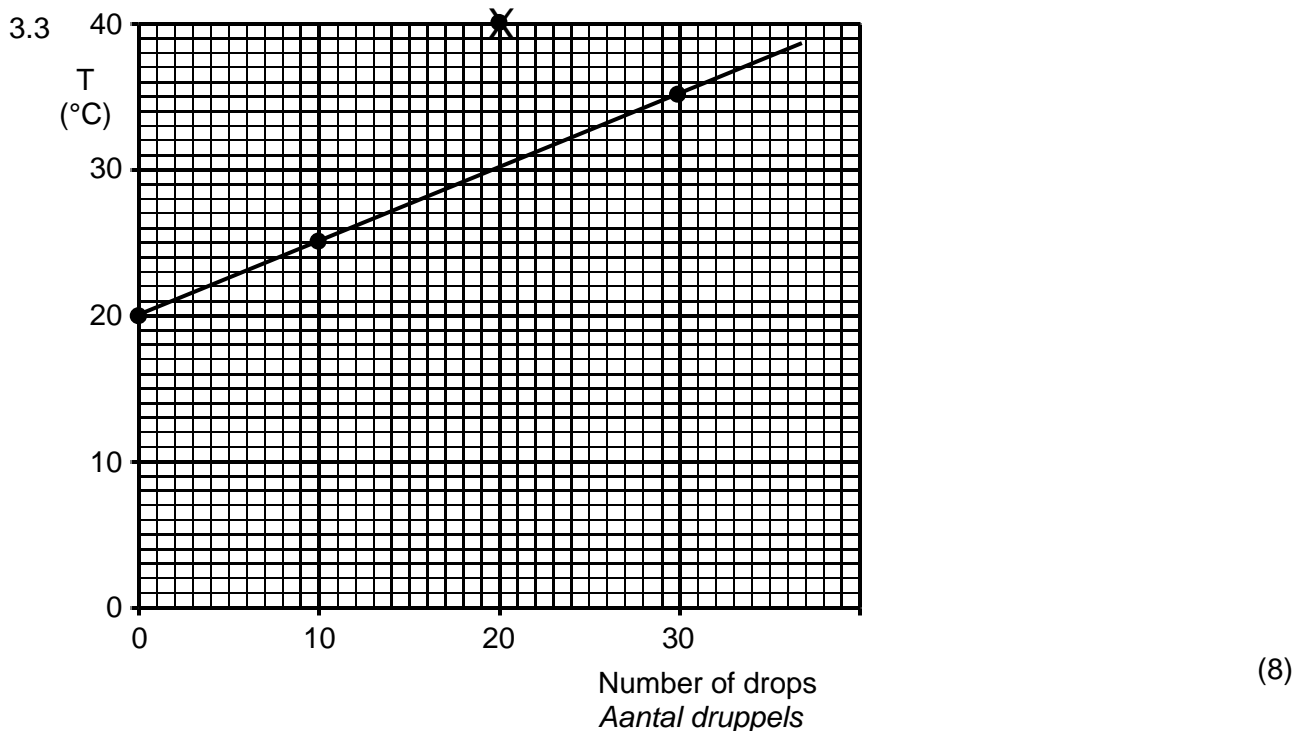
QUESTION 2 / VRAAG 2

- | | | | |
|-----|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-----|
| 2.1 | Oxygen ✓ | Suurstof ✓ | (1) |
| 2.2 | A glowing wood splinter ✓ ignites. ✓ | 'n Gloeiende houtsplinter ✓ ontbrand. ✓ | (2) |
| 2.3 | Catalyst ✓ | Katalis ✓ | (1) |
| 2.4 | Downward displacement ✓ of water. ✓ | Afwaartse verplasing ✓ van water. ✓ | (2) |
| 2.5 | Oxygen is less dense than water. ✓
Oxygen does not dissolve (well) in water. ✓ | Suurstof is minder dig as water. ✓
Suurstof los nie goed in water op nie. ✓ | (2) |
| 2.6 | $2\text{H}_2\text{O}_2 \rightarrow \text{O}_2 + 2\text{H}_2\text{O}$ ✓ Balance/Balanseer. Ratio/Verhouding 2:1:2 ✓ | | (3) |

[11]

QUESTION 3 / VRAAG 3

- | | | | |
|-------|----------------------------------------------------------------------------|-------------------------------------------------------------------------|-----|
| 3.1.1 | Retort stand ✓ | Retortstaander ✓ | (1) |
| 3.1.2 | Burette ✓ | Buret ✓ | (1) |
| 3.1.3 | Erlenmeyer flask ✓ | Erlenmeyerfles ✓ | (1) |
| 3.2 | Blue to green/yellow
✓ for correct colours
✓ for correct "direction" | Blou na groen/geel
✓ vir korrekte kleure
✓ vir korrekte "rigting" | (2) |



Marking criteria/Nasienriglyne

- Both axes correctly labelled./Beide asse het korrekte byskrifte. ✓
 Appropriate scale on both axes./Toepaslike skaal op beide asse. ✓
 Each point correctly plotted./Elke punt korrek gestip. ✓✓✓✓
 Incorrect point marked./Foutiewe punt gemerk. ✓
 Best-fit line drawn through three other points./Bes-passende lyn deur drie ander punte getrek. ✓

- 3.4 20 (✓✓) °C (2)
[15]

GRAND TOTAL/GROOTTOTAAL: 40