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# Morning Reading

Grade 10 · Week 14

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*Read each word aloud, then copy the English word three times.*

## Reading

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*Read the passage aloud twice.*

A recipe is a plan: first wash the rice, then add water, then cook. Computer scientists call such a plan an **algorithm**: a list of steps that turns **input** into **output**. You can write it as **pseudocode**, simple English-like lines, or draw it as a **flowchart** with boxes and arrows. Good programs also check their input. **Validation** stops silly answers: a **range check** rejects an age of 200, and a **presence check** makes sure the box is not empty.

Deep inside every atom is a tiny **nucleus** made of **protons** and **neutrons**. Atoms of the same element always have the same number of protons, but the number of neutrons can differ. Such atoms are called **isotopes**.

Not all joblessness is the same. **Frictional unemployment** is short: a worker is between jobs. **Structural unemployment** is deeper: the industry itself has changed, and old skills no longer fit. When the whole economy slows down, **cyclical unemployment** rises everywhere.

*Talk about it :*

1. Write a four-step algorithm for making your breakfast.
2. A robot factory replaces 100 workers. What kind of unemployment is this? What could help the workers?

# Physics

Topics 4–5 · Electricity and magnetism, Nuclear physics

 **slip rings**

/slɪp rɪŋz/

 **brushes**

/'brʌʃɪz/

 **deflect**

/dɪ'flekt/

 **turning effect**

/'tɜːnɪŋ ɪ'fekt/

 **split-ring commutator**

/splɪt rɪŋ 'kɒmjʊːteɪtə/

 **step-up**

/step ʌp/

 **step-down**

/step daʊn/

 **high-voltage  
transmission**

/haɪ 'vəʊltɪdʒ trænz'mɪʃn/

 **atom**

/'ætəm/

 **orbit**

/'ɔːbɪt/

 **charge**

/tʃɑːdʒ/

 **alpha particle  $\alpha$**

/'ælfə 'pɑːtɪkl/

 **beta particle  $\beta$**

/'bi:tə 'pɑːtɪkl/

 **gold foil**

/gəʊld fɔɪl/

 **scattering**

/'skætərɪŋ/

|                                                                                                                  |  |  |  |
|------------------------------------------------------------------------------------------------------------------|--|--|--|
|  <b>nucleon</b><br>/'nju:klɪən/ |  |  |  |
|  <b>nucleus</b><br>/'nju:klɪəs/ |  |  |  |
| $\Sigma$ <b>nucleon number</b><br>/'nju:klɪən 'nʌmbə/                                                            |  |  |  |
| <b># proton number</b><br>/'prəʊtɒn 'nʌmbə/                                                                      |  |  |  |
| <b>+ proton</b><br>/'prəʊtɒn/                                                                                    |  |  |  |
|  <b>relative</b><br>/'relətɪv/  |  |  |  |
|  <b>neutron</b><br>/'nju:trɒn/  |  |  |  |

## Chemistry

Topic 10 · Chemistry of the environment

|                                                                                                                                            |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
|  <b>toxic</b><br>/'tɒksɪk/                              |  |  |  |
|  <b>deoxygenation</b><br>/diːˌɒksɪdʒə'neɪʃn/            |  |  |  |
|  <b>sedimentation</b><br>/ˌsedɪmən'teɪʃn/               |  |  |  |
|  <b>filtration</b><br>/fɪl'treɪʃn/                      |  |  |  |
|  <b>chlorination</b><br>/ˌklɔːrɪ'neɪʃn/                 |  |  |  |
|  <b>fertilisers</b><br>/'fɜːtəlaɪzəz/                   |  |  |  |
|  <b>oxides of nitrogen</b><br>/'ɒksaɪdz ɒv 'naɪtrədʒɪn/ |  |  |  |
|  <b>phosphorus</b><br>/'fɒsfɔːrəs/                      |  |  |  |

|                                                                                                                                                       |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
|  <b>greenhouse gases</b><br>/'gri:nhaʊs 'gæsi:z/                     |  |  |  |
|  <b>complete combustion</b><br>/kəm'pli:t kəm'bʌstʃn/                |  |  |  |
|  <b>incomplete combustion</b><br>/ɪŋkəm'pli:t kəm'bʌstʃn/            |  |  |  |
|  <b>particulates</b><br>/pɑ'tɪkjələts/                               |  |  |  |
|  <b>fossil fuels</b><br>/'fɒsl 'fju:əlz/                             |  |  |  |
|  <b>global warming</b><br>/'gləʊbl 'wɔ:mɪŋ/                          |  |  |  |
|  <b>climate change</b><br>/'klaɪmət tʃeɪndʒ/                         |  |  |  |
|  <b>respiratory</b><br>/rɪ'spɪrətəri/                               |  |  |  |
|  <b>acid rain</b><br>/'æsɪd reɪn/                                  |  |  |  |
|  <b>photochemical smog</b><br>/ˌfəʊtəʊ'kemɪkl smɒɡ/                |  |  |  |
|  <b>renewable energy</b><br>/rɪ'nju:əbl 'enədʒi/                   |  |  |  |
|  <b>catalytic converters</b><br>/ˌkætə'lɪtɪk kən'vɜ:təz/           |  |  |  |
|  <b>flue gas desulfurisation</b><br>/flu: gæs diːsʌlfjʊərəɪ'zeɪʃn/ |  |  |  |
|  <b>chlorophyll</b><br>/ˌklɔ:rəʊ'fɪl/                              |  |  |  |

# Biology

## Topic 16 · Reproduction

⊙ **diploid**

/ˈdɪplɔɪd/

♂ **sepals**

/ˈseɪplz/

⊗ **petals**

/ˈpetlz/

♂ **stamens**

/ˈsteɪmənz/

— **filament**

/ˈfɪləmənt/

⊙ **anther**

/ˈænthə/

⋮ **pollen grains**

/ˈpɒlən greɪnz/

⊗ **carpel**

/ˈkɑːpl/

⊙ **stigma**

/ˈstɪgmə/

♂ **style**

/stɑɪl/

○ **ovary**

/ˈəʊvəri/

○ **ovules**

/ˈɒvjuːlz/

↔ **self-pollination**

/self ˌpɒliˈneɪʃn/

↔ **cross-pollination**

/krɒs ˌpɒliˈneɪʃn/

⊗ **pollinators**

/ˈpɒlɪneɪtəz/

|                                                                                                                               |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------|--|--|--|
|  <b>pollen tube</b><br>/'pɒlən tju:b/        |  |  |  |
|  <b>germinate</b><br>/'dʒɜːmineɪt/           |  |  |  |
|  <b>scrotum</b><br>/'skrɒtəm/                |  |  |  |
|  <b>sperm ducts</b><br>/spɜːm dʌkts/         |  |  |  |
|  <b>prostate gland</b><br>/'prɒsteɪt glænd/  |  |  |  |
|  <b>penis</b><br>/'piːnɪs/                   |  |  |  |
|  <b>oviducts</b><br>/'əʊvɪdʌkts/             |  |  |  |
|  <b>uterus</b><br>/'juːtərəs/               |  |  |  |
|  <b>cervix</b><br>/'sɜːvɪks/               |  |  |  |
|  <b>vagina</b><br>/və'dʒaɪnə/              |  |  |  |
|  <b>flagellum</b><br>/flə'dʒeləm/          |  |  |  |
|  <b>acrosome</b><br>/'ækɾəʊsəʊm/           |  |  |  |
|  <b>jelly coat</b><br>/'dʒeli kəʊt/        |  |  |  |
|  <b>embryo</b><br>/'embriəʊ/               |  |  |  |
|  <b>implants</b><br>/'implænts/            |  |  |  |
|  <b>fetus</b><br>/'fi:təs/                 |  |  |  |
|  <b>umbilical cord</b><br>/ʌm'bɪlɪkl kɔːd/ |  |  |  |

|                                                                                                                                        |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
|  <b>amniotic sac</b><br><i>/,æmni'ɒtɪk sæk/</i>       |  |  |  |
|  <b>amniotic fluid</b><br><i>/,æmni'ɒtɪk 'fluːɪd/</i> |  |  |  |
|  <b>puberty</b><br><i>/'pjuːbəti/</i>                 |  |  |  |

## Mathematics

*Topics 5–6 · Mensuration, Trigonometry*

|                                                                                                                                                    |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
|  <b>minor sector</b><br><i>/'maɪnə 'sektə/</i>                    |  |  |  |
|  <b>major sector</b><br><i>/'meɪdʒə 'sektə/</i>                   |  |  |  |
|  <b>arc length</b><br><i>/ɑːk leŋθ/</i>                           |  |  |  |
|  <b>surface area</b><br><i>/'sɜːfɪs 'eəriə/</i>                 |  |  |  |
|  <b>cross-section</b><br><i>/krɒs 'sekʃn/</i>                   |  |  |  |
|  <b>curved surface area</b><br><i>/kɜːvd 'sɜːfɪs 'eəriə/</i>    |  |  |  |
|  <b>slant height</b><br><i>/slænt haɪt/</i>                     |  |  |  |
|  <b>compound shape</b><br><i>/'kɒmpaʊnd ʃeɪp/</i>               |  |  |  |
|  <b>right-angled triangle</b><br><i>/raɪt 'æŋɡld 'traɪæŋɡl/</i> |  |  |  |
|  <b>hypotenuse</b><br><i>/haɪ'pɒtənjuːs/</i>                    |  |  |  |
|  <b>opposite</b><br><i>/'ɒpəzɪt/</i>                            |  |  |  |
|  <b>adjacent</b><br><i>/ə'dʒeɪsənt/</i>                         |  |  |  |

|                                                                                                                                      |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
|  <b>sine</b><br>/saɪn/                              |  |  |  |
|  <b>cosine</b><br>/'kəʊsaɪn/                        |  |  |  |
|  <b>tangent ratio</b><br>/'tændʒənt 'reɪʃiəʊ/       |  |  |  |
|  <b>angle of elevation</b><br>/'æŋɡl ɒv ,eli'veɪʃn/ |  |  |  |

## Computer Science

Topics 7–8 · Programming

|                                                                                                                             |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------|--|--|--|
|  <b>format check</b><br>/'fɔ:mæt tʃek/     |  |  |  |
|  <b>verification</b><br>/,veri'fɪ'keɪʃn/   |  |  |  |
|  <b>visual check</b><br>/'vɪʒu:əl tʃek/  |  |  |  |
|  <b>double entry</b><br>/'dʌbl 'entri/   |  |  |  |
|  <b>trace table</b><br>/treɪs 'teɪbl/    |  |  |  |
|  <b>normal</b><br>/'nɔ:ml/               |  |  |  |
|  <b>abnormal</b><br>/əb'nɔ:ml/           |  |  |  |
|  <b>extreme</b><br>/ek'stri:m/           |  |  |  |
|  <b>boundary</b><br>/'baʊndəri/          |  |  |  |
|  <b>linear search</b><br>/'liːniə sɜ:tʃ/ |  |  |  |
|  <b>bubble sort</b><br>/'bʌbl sɔ:t/      |  |  |  |

|                                          |       |       |       |
|------------------------------------------|-------|-------|-------|
| $\Sigma$ <b>totalling</b><br>/'təʊtəlɪŋ/ | _____ | _____ | _____ |
| # <b>counting</b><br>/'kaʊntɪŋ/          | _____ | _____ | _____ |
| ^ <b>maximum</b><br>/'mæksɪmə/           | _____ | _____ | _____ |
| ∨ <b>minimum</b><br>/'mɪnɪmə/            | _____ | _____ | _____ |
| — <b>average</b><br>/'ævərɪdʒ/           | _____ | _____ | _____ |
| (x) <b>variable</b><br>/'veəriəbl/       | _____ | _____ | _____ |
| 🔒 <b>constant</b><br>/'kɒnstənt/         | _____ | _____ | _____ |
| 📢 <b>declare</b><br>/'di'kleə/           | _____ | _____ | _____ |
| 🏷️ <b>data type</b><br>/'deɪtə taɪp/     | _____ | _____ | _____ |

## Economics

*Topics 4–5 · Government and the macroeconomy, Economic development*

|                                                                  |       |       |       |
|------------------------------------------------------------------|-------|-------|-------|
| 📋 <b>labour force survey</b><br>/'leɪbə fɔ:s 'sɜ:veɪ/            | _____ | _____ | _____ |
| 👥 <b>labour force</b><br>/'leɪbə fɔ:s/                           | _____ | _____ | _____ |
| ↔️ <b>frictional unemployment</b><br>/'frɪkʃənəl ʌnem'plɔɪmənt/  | _____ | _____ | _____ |
| 🏢 <b>structural unemployment</b><br>/'strʌktʃərəl ʌnem'plɔɪmənt/ | _____ | _____ | _____ |
| ↺️ <b>cyclical unemployment</b><br>/'saɪklɪkəl ʌnem'plɔɪmənt/    | _____ | _____ | _____ |
| ↘️ <b>deflation</b><br>/di:'fleɪʃn/                              | _____ | _____ | _____ |

## Consumer Prices Index

/kən'su:mə 'praɪsɪz 'ɪndeks/

## weight

/weɪt/

## demand-pull

/dɪ'mænd pʊl/

## cost-push

/kɒst pʊʃ/

## purchasing power

/'pɜ:tʃɪsɪŋ 'paʊə/

## indicator

/'ɪndɪkeɪtə/

## per head

/pɜ: hed/

## Human Development Index

/'hju:mən dɪ'veləpmənt 'ɪndeks/

## English

Topics 9–10 · Listening skills, Speaking skills

## distractors

/dɪ'stræktəz/

## conversation

/kɒnvə'seɪʃn/

## respond

/rɪ'spɒnd/

## turns

/tɜ:nz/

## develop

/dɪ'veləp/

## pronunciation

/prəˌnʌnsɪ'eɪʃn/