**CBC - GRADE FOUR SCIENCE AND TECHNOLOGY SCHEMES OF WORK FOR TERM 2 - 2020**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **WK** | **LES** | **STRAND** | **SUBSTRAND** | **SPECIFIC LEARNING OUTCOMES** | **LEARNING EXPERIENCES** | **K.I.Q** | **RESOURCES** | **ASSESSMENT** | **REFLECTI ON** |
| 1 | Revision of content covered in previous term in preparation for tem 2 work | | | | | | | | |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **2** | 1 | LIVING  THINGS | -Digestive  System  (revision) | By the end of the sub-strand  the learner should be able to;  - model the four different types of teeth  -develop curiosity about taking care of teeth | -In groups learners are guided to  demonstrate the use of different types of teeth(incisors)using locally available materials  -In groups learners are guided to draw/model the type of teeth | How do teeth  differ? | sugarcane,  carrots, fruits, tubers  -digital devices  -Mwangi H. et al (  2019)  ***Science and Technology: learners book –grade 4*** : pg. 20  Moran Publishers | -Observation  -oral questions |  |
| 2 | ENVIRONM  ENT | **1.-Air pollution** | By the end of the sub-strand  the learner should be able to;  - -state the meaning of the terms “pollution” and “air pollution” | In groups, learners are guided to  discuss meaning of terms  “pollution” and “air pollution  -Learners to be guided as they use visual aids and digital devices to explore meaning of the said terms | What causes  pollution? | Digital devices and  visual aids  *-learners bk. Pg22* | -Observation  -oral questions |  |
| 3 | ENVIRONM  ENT | -Air pollution | By the end of the sub-strand  the learner should be able to;- - identify air pollutants in nearby environment | In groups learners walk around  the school and neighbourhood to observe, identify and record air pollutants | What causes  air pollution? | Dust masks, goggles,  overcoats  *-learners bk. Pg23* | -Observation  -oral questions |  |
| 4 | ENVIRONM  ENT | -Air pollution | By the end of the sub-strand  the learner should be able to;  - identify air pollutants in nearby environment | -learners to be guided as they use  visual aids and digital devices to observe, identify and record air pollutants | What causes  air pollution? | Digital devices and  visual aids  *-learners bk. Pg 23* | -Observation  -oral questions |  |
| **3** | 1 | ENVIRONM  ENT | -Air pollution | By the end of the sub-strand  the learner should be able to;  -Distinguish between clean and polluted air in his/her environment | In groups learners walk around  the school and neighbourhood to identify and record clean and polluted air | What are the  effects of air pollution? | Dust masks, goggles,  overcoats  *-learners bk. Pg24* | -Observation  -oral questions |  |
| 2 | ENVIRONM  ENT | -Air pollution | By the end of the sub-strand  the learner should be able to;  -Distinguish between clean and polluted air in his/her | -learners to be guided as they use  visual aids and digital devices to clean and polluted air | What are the  effects of air pollution? | Digital devices and  visual aids  *-learners bk. Pg24* | -Observation  -oral questions |  |
|  |  |  |  | environment |  |  |  |  |  |
| 3 | ENVIRONM  ENT | -Air pollution | By the end of the sub-strand  the learner should be able to; Identify effects of air pollution on living things | In groups learners walk around  the school and neighbourhood to observe, record water pollutants effects of air pollution on living things | What are the  effects of air pollution? | Dust masks, goggles,  overcoats  *-learners bk. Pg25* | -Observation  -oral questions |  |
| 4 | ENVIRONM  ENT | -Air pollution | By the end of the sub-strand  the learner should be able to; Identify effects of air pollution on living things  -Appreciate the importance of clean air in his/her environment | -learners to be guided as they use  visual aids and digital devices to effects of air pollution on living things | What are the  effects of air pollution? | Digital devices and  visual aids  *-learners bk. Pg25* | -Observation  -oral questions |  |
| **4** | 1 | ENVIRONM ENT | -Air pollution | By the end of the sub-strand the learner should be able to;  Identify ways of reducing air pollution | In groups learners walk around the school and neighbourhood to  Identify ways of reducing air pollution | How can you reduce air  pollution? | Dust masks, goggles, overcoats  *-learners bk. Pg 26* | -Observation  -oral questions |  |
| 2 | ENVIRONM  ENT | -Air pollution | By the end of the sub-strand  the learner should be able to; Identify ways of reducing air pollution | -learners to be guided as they use  visual aids and digital devices to Identify ways of reducing air pollution | How can you  reduce air pollution? | Digital devices and  visual aids  *-learners bk. Pg27* | -Observation  -oral questions |  |
| 3 | ENVIRONM ENT | -Air pollution | By the end of the sub-strand the learner should be able to;  Identify ways of reducing air pollution | -learners to be guided as they use visual aids and digital devices to  Identify ways of reducing air pollution | How can you reduce air  pollution? | Digital devices and visual aids  *-learners bk. Pg27* | -Observation  -oral questions |  |
| 4 | ENVIRONM  ENT | -Air pollution | By the end of the sub-strand  the learner should be able to; make a functional air pollution detector | -In groups learners are guided to  make a functional air pollution detector | How useful is  the air pollution detector? | White cloth, dust  masks, internet  *-learners bk. Pg28* | -Observation  -oral questions  -Project work |  |
| **5** | 1 | ENVIRONM  ENT | -Air pollution | By the end of the sub-strand  the learner should be able to; make a functional dust mask using locally available materials | -In groups learners are guided to  make a functional air pollution detector | How useful is  the air pollution detector? | White cloth, dust  masks, internet  *-learners bk. Pg29* | -Observation  -oral questions  -Project work |  |
| 2 | ENVIRONM ENT | **2. water pollution** | By the end of the sub-strand the learner should be able to;  -state the meaning of the  term “water pollution” | In groups learners are guided to discuss the meaning of the term  water pollution  -learners to be guided as they use visual aids and digital devices to explore the meaning of the term “water pollution | -What is water  pollution? | Digital devices and visual aids  *-learners bk. Pg31* | -oral questions |  |
| 3 | ENVIRONM ENT | water pollution | By the end of the sub-strand the learner should be able to;  -identify water pollutants in  his/her environment | In groups learners walk around the school and neighbourhood to  observe, identify and record water  pollutants (soil and wastes) | What causes water  pollution? | Gloves, gumboots  *-learners bk. Pg 32* | -observation  -oral questions |  |
| 4 | ENVIRONM  ENT | water  pollution | By the end of the sub-strand  the learner should be able to;  -identify water pollutants in his/her environment | -learners to be guided as they use  visual aids and digital devices to observe, identify and record water pollutants | What causes  water pollution? | Digital devices and  visual aids  *-learners bk. Pg33* | -observation  -oral questions |  |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **6** | 1 | DIGITAL TECHNOLOGY | **Digital devices** | By the end of the sub-strand the learner should be able to;  -Define the term ‘’digital devices  -identify the various digital devices in his/her locality | -In groups learners to be guided to discuss the meaning of the term ;’’ digital devices’’  In groups learners are guided to observe and identify the various digital devices in their locality(ipads, laptop, computer, tv’s. radio etc | What are the main parts of a digital device? | Prototypes, computers, tablets, radios, TV, phones, cameras, Internet  *-learners bk. Pg39* | -oral questions |  |
| 2 | **Digital devices** | By the end of the sub-strand  the learner should be able to;  -Identify different parts of digital devices in his/locality | -In groups learners are guided to observe and identify the various parts of digital devices using real objects or visual aids | What are the names of the main parts of a computer? | computers, tablets, radios, TV, phones, cameras, Internet  *-learners bk. Pg41* | -Observation  -oral questions |  |
| 3 | **Digital devices** | By the end of the sub-strand  the learner should be able to;  -state the functions of the various parts of a digital device. | -In groups learners to discuss the functions of the various parts of a digital device. | What are the functions of the main parts of a computer? | computers, tablets, radios, TV, phones, cameras, Internet  *-learners bk. Pg41* | -Observation  -oral questions |  |
| 4 | **Digital devices** | By the end of the sub-strand  the learner should be able to; Demonstrate proper connection of the parts of digital devices | -In groups learners are guided to connect parts of the digital devices in their locality | How do properly connect a computer? | computers, tablets, radios, TV, phones, cameras, Internet  *-learners bk. Pg42* | Demonstration  Observation  Oral questions |  |
| **7** | 1 | DIGITAL TECHNOLOGY  DIGITAL TECHNOLOGY | **Digital devices** | By the end of the sub-strand  the learner should be able to; Demonstrate proper use of digital devices in their day today life | -Learners to practice proper use of digital devices( typing, taking photos, play stations, recording, videos and audios) | How do we properly use digital devices in our locality? | computers, tablets, radios, TV, phones, cameras, Internet  *-learners bk. Pg43* | Demonstration  Observation  Oral questions |  |
| 2 | **Digital devices** | By the end of the sub-strand  the learner should be able to; Model external parts of a digital device using locally available materials | Project: learners to model external parts of a digital device using locally available materilas | What are the main parts of a digital device? | computers, tablets, radios, TV, phones, cameras, Internet, plasticine, clay  *-learners bk. Pg45* | Modeling |  |
| 3 | **Digital devices** | By the end of the sub-strand  the learner should be able to;  Model external parts of a digital device using locally available materials | Project: learners to model external parts of a digital device using locally available materilas | What are the main parts of a digital device? | computers, tablets, radios, TV, phones, cameras, Internet Internet, plasticine, clay  *-learners bk. Pg45* | Modeling |  |
| 4 | **Coding** | By the end of the sub-strand  the learner should be able to; state meaning of the term ‘’coding’’ | In groups learners to be guided to discuss the meaning of the term ;’’coding’’ | What is coding? | computers, tablets, radios, TV, phones, cameras, Internet  *-learners bk. Pg47* | Observation  Oral questions |  |
| **8** | 1 | DIGITAL TECHNOLOGY | **Coding** | By the end of the sub-strand  the learner should be able to; identify coded patterns | In groups learners are guided to observe, identify and discuss locally available coded patterns ( eg sodoku, word puzzle, bird nests etc) | What are coded patterns? | computers, tablets, radios, TV, phones, cameras, Internet newspapers  *-learners bk pg48* | Observation  Oral questions |  |
| 2 | **Coding** | By the end of the sub-strand  the learner should be able to; identify coded patterns | -use digital devices to observe, identify and discuss different coded pattern.eg fun and games | What are coded patterns? | computers, tablets, radios, TV, phones, cameras, Internet newspapers  *-learners bk. Pg48* | Observation  Oral questions |  |
| 3 | **Coding** | By the end of the sub-strand  the learner should be able to; play simple puzzle games | -In groups learners are guided to play simple puzzle games e.g fitting missing parts, word puzzle etc) | How do we play computer games and puzzles? | computers, tablets, radios, TV, phones, cameras, Internet newspapers  *-learners bk. Pg49* | Observation  Oral questions |  |
| 4 | **Coding** | By the end of the sub-strand  the learner should be able to; play simple puzzle games | In groups learners use digital devices to solve simple patterns for example computer games and puzzles) | How do we play computer games and puzzles | computers, tablets, radios, TV, phones, cameras, Internet  *-learners bk. Pg51* | Observation  Oral questions |  |
| **9** | 1 | MATTER | **States of matter: -**Understanding matter | By the end of the sub-strand  the learner should be able to; Identify the three states of matter | -In groups, learners to observe and identify solids, liquids and presence of air in their environment | What are the characteristics of matter?  How can we show that there is air around us? | Containers, pebbles, soil, stones, balloons, digital devices  *-learners bk. Pg 52* | Observation  Oral questions |  |
| 2 | **States of matter;** Understanding matter | By the end of the sub-strand  the learner should be able to; Identify the three states of matter | -Working in groups learners to use visual aids and digital devices to identify the three states of matter(solids, liquids, gases) | What are the characteristics of matter? | Containers, pebbles, soil, stones, balloons, digital devices  *-learners bk. Pg53* | Observation  Oral questions |  |
| 3 | **States of matter:** Understanding matter | By the end of the sub-strand  the learner should be able to; Investigate different states of matter to show their characteristics | -Learners to work in groups to investigate the characteristics of different states of mater (shape, volume , mass) | What are the characteristics of matter? | Containers, pebbles, soil, stones, balloons, digital devices  *-learners bk. Pg 54* | Observation  Oral questions |  |
| 4 | **States of matter:** Understanding matter | By the end of the sub-strand the learner should be able to; Investigate different states of matter to show their characteristics | -learners to manipulate different materials to show the characteristics of the three states of matter (filing balloons, with air,filling containers with pebbles, soil, and stones | What are the differences in the three states of matter? | Containers, pebbles, soil, stones, balloons, digital devices  *-learners bk. Pg55* | Observation  Oral questions |  |
| **10** | Revision of content covered in the term in preparation of end term assessments | | | | | | | |  |
| **11** | End term assessments | | | | | | | |  |