

NATURAL SCIENCES

GRADE 8 TERM 1

Tracker



COVID – 19 INFORMATION:

What is COVID-19?

COVID-19 is a disease caused by a new strain of coronavirus. 'CO' stands for corona, 'VI' for virus, and 'D' for disease. Formerly, this disease was referred to as '2019 novel coronavirus' or '2019-nCoV.' The COVID-19 virus is a new virus linked to the same family of viruses as Severe Acute Respiratory Syndrome (SARS) and some types of common cold.

What are the symptoms of COVID-19?

Symptoms can include fever, cough and shortness of breath. In more severe cases, infection can cause pneumonia or breathing difficulties. More rarely, the disease can be fatal. These symptoms are similar to the flu (influenza) or the common cold, which are a lot more common than COVID-19. This is why testing is required to confirm if someone has COVID-19.

PSYCHOSOCIAL SUPPORT

It is natural for children to feel stress, anxiety, grief, and worry during an ongoing pandemic like COVID-19. Fear and anxiety about their own health and the health of loved ones can be overwhelming and cause strong emotions. In today's digital world, children also access different kinds of information and news through social media and digital platforms, some of them may not be factually true, causing further stress and anxiety. It is enhanced when children are not able to go out, play, attend school or interact freely. For those children and families who are subjected to quarantine or isolation there may be an increased risk of violence and abuse. When stress levels go up for adults and children, there is a greater risk of gender based violence and other forms of violence against children.

Role as parent or caregiver:

- To promote an environment where children can grow up and develop their full potential having fun and being safe and healthy.
- To facilitate a space where children are listened to, they can express their thoughts and feelings, and are free to ask any question and are answered honestly.

Week 1											
CAPS Concepts and Activities	CAPS Page no.	Year:					Year:				
		Class					Class				
		Date Completed					Date Completed				
Week 1 Lesson A											
Topic: Photosynthesis and respiration Content & Concepts: Photosynthesis <ul style="list-style-type: none"> Interactions and interdependence in an ecosystem are driven by the need for energy to sustain life The Sun is the most important source providing this energy in the form of light and heat 	35										
Week 1 Lesson B											
Topic: Photosynthesis and respiration Content & Concepts: Photosynthesis <ul style="list-style-type: none"> Plants use carbon dioxide (from the air), water (from the soil) and energy from the Sun in a series of chemical reactions to produce glucose (food). This process is called photosynthesis 	35										
Week 1 Lesson C											
Topic: Photosynthesis and respiration Content & Concepts: Photosynthesis <ul style="list-style-type: none"> Plants change glucose into starch, cellulose and other chemical compounds to enable processes, such as growth and reproduction 	35										
Reflection											
Year:											
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you cover all the work set for the week? If not, how will you get back on track?						What will you change next time? Why?					
						HOD:					Date:

Week 2											
CAPS Concepts and Activities	CAPS Page no.	Year:					Year:				
		Class					Class				
		Date Completed					Date Completed				
Week 2 Lesson A											
Topic: Photosynthesis and respiration Content & Concepts: Respiration <ul style="list-style-type: none"> Food contains energy (potential energy). This energy can be released from food by a series of chemical reactions. This process is called respiration 	35										
Week 2 Lesson B											
Topic: Photosynthesis and respiration Content & Concepts: Respiration <ul style="list-style-type: none"> Respiration (in all living organisms) is the process by which energy is released from food in a series of chemical reactions 	35										
Week 2 Lesson C											
Topic: Photosynthesis and respiration Content & Concepts: Respiration <ul style="list-style-type: none"> Respiration (in all living organisms) is the process by which energy is released from food in a series of chemical reactions 	35										
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Week 3											
CAPS Concepts and Activities	CAPS Page no.	Year:					Year:				
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Week 3 Lesson A											
Topic: Interactions and interdependence within the environment Content & Concepts: Introduction to ecology <ul style="list-style-type: none"> Ecology is the study of interactions of organisms with one another and with the physical and chemical environment Scientists usually classify the study of ecological interactions into four levels, populations, communities, ecosystems and the biosphere Content & Concepts: Ecosystems <ul style="list-style-type: none"> All ecosystems combine to make up the biosphere 	36										
Week 3 Lesson B											
Topic: Interactions and interdependence within the environment Content & Concepts: Ecosystems <ul style="list-style-type: none"> An ecosystem consists of an ecological community that includes all living organisms, such as plants and animals, together with the non-living environment, such as temperature, wind, water, interacting as a system 	36										
Week 3 Lesson C											
Topic: Interactions and interdependence within the environment Content & Concepts: Ecosystems <ul style="list-style-type: none"> The size of an ecosystem is not specifically defined, and it usually encompasses a specific, limited area (although it can encompass the entire planet) Ecosystems are defined by the network of interactions among organisms and between organisms and their environment Survival of individual organisms and populations depends on its ability to cope with changes (adapt) in its habitat (the place where an organism lives) or in the ecosystem 	36										

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Week 4											
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Week 4 Lesson A											
Topic: Interactions an interdependence within the environment Content & Concepts: Feeding relationships <ul style="list-style-type: none"> Plants are producers. They make their own food Animals are consumers. They obtain food from plants either directly (such as herbivores) or indirectly (such as carnivores) 	37										
Week 4 Lesson B											
Topic: Interactions and interdependence within the environment Content & Concepts: Feeding relationships <ul style="list-style-type: none"> Herbivores: feed on plant material Carnivores: feed on other animals. The group includes <ul style="list-style-type: none"> those that hunt other animals (prey) are predators (for example leopards) those that eat dead animals are scavengers (for example hyenas, vultures) insectivores feed mainly on insects and other smaller invertebrates, such as worms (for example earthworms) Omnivores: feed on plants and animals (for example humans) 	37										
Week 4 Lesson C											
Topic: Interactions and interdependence within the environment Content & Concepts: Feeding relationships <ul style="list-style-type: none"> Decomposers: breakdown (decompose) the remains of dead plants and animals. They recycle important nutrients in the environment (for example bacteria, fungi, earthworms) 	37										

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Week 5 Lesson A											
Topic: Interactions and interdependence within the environment Content & Concepts: Energy Flow – food chains and food webs <ul style="list-style-type: none"> Plants and algae play an important role in the ecosystem, as they capture energy from the Sun by the process of photosynthesis Each stage of a food chain is called a trophic level Energy transfer and energy loss occur at each trophic level 	38										
Week 5 Lesson B											
Topic: Interactions and interdependence within the environment Content & Concepts: Energy Flow – food chains and food webs <ul style="list-style-type: none"> This energy is passed along a food chain from producers to consumers; decomposers are the last link in this transfer of energy and release energy as heat to the environment 	38										
Week 5 Lesson C											
Topic: Interactions and interdependence within the environment Content & Concepts: Energy Flow – food chains and food webs <ul style="list-style-type: none"> Interlinked food chains together form food webs 	38										
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Week 6											
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Week 6 Lesson A											
Topic: Interactions and interdependence within the environment Content & Concepts: Balance in an ecosystem <ul style="list-style-type: none"> • An ecosystem can only accommodate as many organisms as its resources (food, water and shelter) can carry and it will fail if it does not remain in balance • This balance can be disrupted by natural and human factors <ul style="list-style-type: none"> ○ Natural factors include extreme changes in patterns of weather and climate, such as floods, drought, extreme and sudden changes in temperature ○ Human factors include removing organisms from the ecosystem (such as poaching), human induced pollution 	38										
Week 6 Lesson B											
Topic: Interactions and interdependence within the environment Content & Concepts: Balance in an ecosystem <ul style="list-style-type: none"> • These factors can contribute to an imbalance in an ecosystem, seriously impacting on its components and altering its nature 	38										
Week 6 Lesson C											
Topic: Interactions and interdependence within the environment Content & Concepts: Adaptations <ul style="list-style-type: none"> • Adaptation is the change in the structural, functional and behavioural characteristics of an organism 	38										

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Week 7											
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Week 7 Lesson A											
Topic: Interactions and interdependence within the environment Content & Concepts: Adaptations <ul style="list-style-type: none"> Adaptation allows the organism to survive as it adapts to changing conditions within the environment Organisms that are unable to adapt to changes within the environment die out (become extinct) 	38										
Week 7 Lesson B											
Topic: Interactions and interdependence within the environment Content & Concepts: Conservation of the ecosystem <ul style="list-style-type: none"> Environmentalists and others work towards managing ecosystems, such as control of alien vegetation and preservation of wetlands 	38										
Week 7 Lesson C											
Topic: Interactions and interdependence within the environment Content & Concepts: Conservation of the ecosystem <ul style="list-style-type: none"> Individuals can contribute to conservation in various ways, such as appropriate waste disposal (including recycling, reusing) 	38										
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Week 8											
		Year:					Year:				
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Week 8 Lesson A											
Topic: Micro-organisms Content & Concepts: Types of micro-organisms <ul style="list-style-type: none"> • Micro-organisms are living things • They are too small to see with the naked eye (they can only be seen under a microscope) 	39										
Week 8 Lesson B											
Topic: Micro-organisms Content & Concepts: Types of micro-organisms <ul style="list-style-type: none"> • There is a variety of micro-organisms, including viruses, bacteria, protista and fungi 	39										
Week 8 Lesson C											
Topic: Micro-organisms Content & Concepts: Harmful micro-organisms <ul style="list-style-type: none"> • Some micro-organisms cause diseases, such as TB (caused by bacteria), AIDS (caused by the HI virus) and malaria (caused by a protest) • Disease causing organisms are found almost everywhere, such as at ATM's, handrails of staircases and toilets 	39										
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Week 9											
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Week 9 Lesson A											
Topic: Micro-organisms Content & Concepts: Harmful micro-organisms <ul style="list-style-type: none"> Waterborne diseases (such as cholera and diarrhoea) account for many child deaths Effective methods of preventing the spread of diseases caused by micro-organisms include washing hands and sterilising modern scientists such as Louis Pasteur play an important role in identifying and developing cures for some diseases 	39										
Week 9 Lesson B											
Topic: Micro-organisms Content & Concepts: Useful micro-organisms <ul style="list-style-type: none"> Some micro-organisms play an essential role in ecosystems, such as decomposing dead plants and animal matter, thereby recycling nutrients in the soil Some micro-organisms are used by people for making certain foods (such as yoghurt) and medicines (such as penicillin) 	39										
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