**2015-2016 Grade 7**

**Islamic Foundation School**

**COURSE OUTLINE- Middle School**

**Subject:** Science and Technology

**Grade:** 7

**Course Developer:** Nillab Whahedi

**Overall Curriculum Expectations**

INTERACTIONS IN THE ENVIRONMENT

1. assess the impacts of human activities and technologies on the environment, and evaluate ways of controlling these impacts;

2. investigate interactions within the environment, and identify factors that affect the balance between different components of an ecosystem;

3. demonstrate an understanding of interactions between and among biotic and abiotic elements in the environment.

PURE SUBSTANCES AND MIXTURES

1. evaluate the social and environmental impacts of the use and disposal of pure substances and mixtures;

2. investigate the properties and applications of pure substances and mixtures;

3. demonstrate an understanding of the properties of pure substances and mixtures, and describe these characteristics using the particle theory.

FORM AND FUNCTION

1. analyse personal, social, economic, and environmental factors that need to be considered in designing and building structures and devices;

2. design and construct a variety of structures, and investigate the relationship between the design and function of these structures and the forces that act on them;

3. demonstrate an understanding of the relationship between structural forms and the forces that act on and within them.

HEAT IN THE ENVIRONMENT

1. assess the costs and benefits of technologies that reduce heat loss or heat-related impacts on the environment;

2. investigate ways in which heat changes substances, and describe how heat is transferred;

3. demonstrate an understanding of heat as a form of energy that is associated with the movement of particles and is essential to many processes within the earth’s systems.

**TEACHING STRATEGIES:**

Enhancing strong literacy and numeracy skills are the crucial foundations for all other academic achievements and for a life time of success. There will be a variety of teaching styles such as active learning, brainstorming, cooperative/collaborative learning, exploring, multimedia, demonstrations, critical thinking inquiry and research-based learning, team based learning, problem based learning, and service learning. These will be carried out by the teacher as per the requirement of the subject and student's knowledge and skills.

**LEARNING STRATEGIES:**

Learning skills will be assessed mainly on independent work, initiation, good work habits, such as. homework completion, use of information, class participation, problem solving, goal setting in order to obtain optimal understanding and application of various specific expectations. The following will be the main success criteria for learning skills

1. Responsibility ii) Organization, iii) Independent work iv) Initiative v) Self regulation.

**Assessment**: For student success various assessment tools will be used such as participation observation, checklist, mini quiz, peer checking, teacher- student class discussion to assess the knowledge and skills. These criteria will be to ensure assessment as learning and assessment forlearning that needs to take place. It will include strategies such as sharing learning goals and success criteria, providing feedback in relation to goals, and developing student’s ability to self-assess as a way of increasing student’s engagement in and commitment to learning.

**Evaluation of Student Performance:**

Evaluation will be based on assessment of learning. Evidence of student achievement for evaluation will be collected over time from three different sources such as observations, conversations, and student products using multiple sources of evidence to ensure the reliability and validity of the evaluation of student learning.

Evaluation will be focussed on student’s achievement of the overall expectations based on the four Ministry of Education achievement categories: Knowledge and understanding, thinking, communication and application. A single evaluation may include one, more than one, or all of the aforementioned categories.

**Reporting Student Achievement**: There will be a **two term** reporting of student’s development on learning skills and work habits and general progress towards the achievements of the curriculum expectations.

**Rules and Regulations:**

1. **Plagiarism**: It is deliberate, academic dishonesty and is taken seriously as a major offence. It mainly includes following forms:

* Copying from another student, or making information available to other students, knowing that this is to be submitted as the borrower's own work
* Use of unauthorized material
* Copying an essay or assignment, or allowing one's essay or assignment to be copied by someone else.
* Using direct quotations or large sections of paraphrased material without acknowledgment

**Consequences of plagiarism**: Plagiarism has severe consequences. Student caught plagiarizing in any other forms as well, will get a straight **zero** for that assignment or test as a penalty for cheating. It will be teacher’s discretion to allow/decline the student to resubmit the assignment after having discussion with parents and approval/disapproval from the principal.

1. **Conduct:** Students must follow the school’s Code of Conduct, participate fully in discussions, and complete all homework and assignments in time to the best of their ability.

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