

Study Guide for **Grade 8** Unit 3 assessment

Subject: Science

Date of Assessment: **17th February 2020**

Duration of test: 1 lesson

You are expected to study from:

- **Force and energy textbook**

Learning expectation

Students are expected to

- **Understand the concept and not solely memorize vocabulary**
- **Apply concept knowledge to answer the questions**
- **Try answering/solving side questions on the lessons in the textbook as a practice of critical /higher order thinking questions**
- **Not just rely on textbook information but also look into the video and weblinks shared on google classroom as reference of concepts taught in class**

1. Textbook lessons

Chapters	Topic
Chapter 1	Section 1.1 Describing motion
	Section 1.2 Speed and velocity
	Section 1.3 Acceleration
Chapters	Topic
Chapter 2	Section 2.1 The nature of force
	Section 2.2 Friction and gravity
	Section 2.3 Newton law of motion

2. Concepts to focus on

Section 1.1 Describing Motion	Section 1.2 Speed and Velocity	Section 1.3 Acceleration
<ul style="list-style-type: none"> • Reference point • Relative motion • Measuring distance 	<ul style="list-style-type: none"> • Calculate speed • Calculate distance • Calculate time • Unit of speed, distance and time • Interpret Distance time graph • Velocity 	<ul style="list-style-type: none"> • Calculate acceleration • Calculate change in velocity (initial and final velocity) • Calculate time • Unit of acceleration, velocity and time • Interpret velocity time graph

Section 2.1 The nature of force	Section 2.2 Friction and gravity	Section 2.3 Newton law of motion
<ul style="list-style-type: none"> • How forces are described • How to calculate net force 	<ul style="list-style-type: none"> • What factors affect friction • Types of friction • What factors affect gravity 	<ul style="list-style-type: none"> • Newtons first law • Inertia • Newtons second law • How to calculate force • Newtons third law

3. Useful weblinks

Relative motion - <https://www.youtube.com/watch?v=wD7C4V9smG4&t=224s>

Speed and velocity - <https://www.youtube.com/watch?v=X4Wxd4m-QVc>

Types of acceleration - <https://www.youtube.com/watch?v=9smjFnjKW6w&t=11s>

Force - <https://www.youtube.com/watch?v=B6mi1-YoRT4>

Types of friction - https://www.youtube.com/watch?v=H877C_5BMkl

Newtons first law - https://www.youtube.com/watch?v=LEHR8YQNm_Q

Newtons second law - <https://www.youtube.com/watch?v=ZvPrn3aBQG8>

Newtons third law - <https://www.youtube.com/watch?v=VibhS2cJFAE>

4. Assessments

Title	Section
Mid check	Chapter 1
Pop quiz	All pop quizzes conducted during unit 3

5. Refer to class notebook and google classroom for the following documents

- Graphic organizers / tables/summaries done in class on their classwork notebook
- Pop quiz questions
- Videos posted on google classroom
- Weblinks posted on google classroom
- Asses your understanding questions that are on the textbook for every lesson mentioned

6. Types of questions to be expected on the test - all questions will be based on skills covered in class

- Critical thinking questions
- Higher order thinking questions
- Analytical question
- Open minded question

7. Students should bring

- Pencil
- Color pencils
- Pen blue or black only
- Corrector
- **Calculator**