**The National Orthodox School /Shmaisani**

**Name: Title: Speed Worksheet**

**Grade-Section: 7- ……CS**

Objectives:

1. Define Speed.
2. Calculate the speed.
3. Revise unit conversion.

Speed is the measure of how fast an object is moving. The units of speed are either m/s (meters per second) or km/h (kilometer per hour).

We calculate speed using the following triangle:

$Speed= \frac{Distance}{Time}$

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$$Distance = Speed x Time$$

$$Time= \frac{Distance }{Speed}$$

Unit Conversion:

Keep in mind the following conversions

1 km = 1000 m

1 hour = 60 min, 1 min = 60 seconds, 1 hour = 3600 seconds

Core: (please solve the following five questions)

1. A sprinter runs 120 meters down athletics track in 10 seconds, how fast is he travelling in m/s?
2. A man walks 2km from a bus station to his work taking him 3 hrs, how fast is the man walking at in km/h?
3. A police car drives 124 km in 3 hours. What is its average speed in kilometers per hour?
4. An airplane flies 3500 km in 2 hours. What is its average speed in kilometers per hour?
5. A cyclist takes 30 seconds to travel 375 meters. What is its average speed in meters per second?

Intermediate: (Solve 4 of the following 5 questions)

1. A car is travelling 300 km along a road in 10800 seconds. How fast is it travelling in:
	1. Km/s?
	2. Km/h?
	3. m/s?
2. An airplane flies with a constant speed of 840 km/h. How far can it travel in 5.3 hours?
3. Noah roller skates with a constant speed of 4 m/s. How far can he travel in 35.7 seconds?
4. Julia drives her car with a constant speed of 71 km/h. How long will she take to travel a distance of 16.33 kilometers?
5. A taxi hurries with a constant speed of 105 km/h. How long will it take to travel a distance of 207.9 kilometers?

Advanced: (Solve 3 of the following 4 questions)

1. Kato cycles at a third of the speed of his friend Luke, who takes 3 minutes to travel 1.8 km, what is Kato’s speed in m/s?
2. An airplane flies 27 km in 36 minutes. What is its average speed in kilometers per hour?
3. Abigail rides her horse with a constant speed of 14 m/s. How far can she travel in 40 minutes?
4. An airplane flies for 1 1/2 hours with a constant speed of 880 km/h and then for another 30 minutes with a constant speed of 800 km/h. What distance did it go?