

**FOSSIL RIM WILDLIFE CENTER
ENVIRONMENTAL MATHEMATICS
“A MATTER OF LIFE AND DEATH”**

FIVE QUESTIONS: (Guess at answers first)

1. Why does the Cheetah live in a habitat with tall grass, brush & trees?
2. Why does the Tommy follow herds of Wildebeest and Zebra?
3. When being chased, why does the Tommy make sharp turns?
4. How close must a Cheetah be to a Tommy before pursuit begins?
5. How long does the Cheetah have to catch its prey?

FIVE FACTS: (Metric System)

1. The Cheetah can run 96.6 km per hour.
2. The Tommy can run 77.3 km per hour.
3. The Cheetah is good for 300 meters.
4. The Cheetah weighs 50 Kg.
5. The Tommy weighs 25 Kg.

DIGGING DEEPER:

1. Why is the Cheetah “out on a limb” regarding its survival?
2. Why does a Cheetah have “dog feet”?
3. What is the value of missing 50% of the time?
4. Can you think of a weak link in the survival of the Cheetah?
5. Can you think of a weak link in the survival of the Tommy?

**FOSSIL RIM WILDLIFE CENTER
ENVIRONMENTAL MATHEMATICS**

CHEETAH/TOMMY WORKSHEET

1. Cheetah Speed = _____

2. Tommy Speed = _____

3. Distance to the kill = _____

4. Cheetah m/Hour _____ Tommy m/hour _____
m/minute _____ m/minute _____
m/second _____ m/second _____

5. Time necessary to go 300 m _____ seconds

6. Distance traveled by Cheetah = _____ meters

7. Distance traveled by Tommy = _____ meters

8. Difference _____ meters

Conversion Factors:

- | | |
|---------------------|------------------|
| Kilometers to miles | multiply by .621 |
| Feet to meters | multiply by .305 |
| Miles to kilometers | multiply by 1.61 |
| Meters to feet | multiply by 3.28 |
| Kilograms to pounds | divide by .454 |
| Miles to feet | multiply by .454 |