Gears PPT Guided Notes:

1. \_\_\_\_\_\_\_\_\_\_\_\_ is a wheel with teeth on its outer edge.
2. Gears rotate on a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. Gears are used to:
   1. \_
   2. \_
   3. \_
4. The \_\_\_\_\_\_\_\_\_ (or input) gear would be the gear that is moved by a crank handle or motor.
5. Two meshed gears always rotate in \_\_\_\_\_\_\_\_\_\_ directions.
6. A \_\_\_\_\_\_\_\_\_ is the ratio used to determine the angular speed and torque of a geared system.
7. What is the gear ratio equation?
8. A \_\_\_\_\_ gear ratio causes a change in the direction of the motion with no change to speed or torque.
9. Solve the following:
   1. A 5-tooth gear driving a 45-tooth gear.
   2. A 3-tooth gear driving a 12-tooth gear.
   3. A 12-tooth gear driving a 3-tooth gear.
10. To increase the speed the driver should be \_\_\_\_\_\_\_\_\_ than the driven gear.
11. To increase the torque the driver should be \_\_\_\_\_\_\_\_\_ than the driven.
12. Torque and speed are \_\_\_\_\_\_\_\_\_\_\_ proportional.
13. A \_\_\_\_\_\_\_\_\_\_\_\_ is a gear system where the gears are not in physical contact with each other. Instead they are connected by a chain.
14. In a gear train with each gear on a separate axle the idler gears \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.