Networking and the OSI model –

Start by talking about Marisa and how she asked about the ducks in the fax.

Three network types Government, Education, Business.

Talk a little about the history of networking with the cold war and ARPA net

OSI Model– Open Software Interconnection Model by Charles Bachman.

Describe as Mail Man

Layer 1 – Physical Layer: Mail Envelope

Deals with electrical pulses

Over comes contention (try to talk over some one to show contention)

Talk about the control wire

Modulation – Draw AM – FM on the board

Deals with device to device

Layer 2 – Data Link Layer: Mail Man

Deals with multiple devices

Created frames (multiple packets) .

Deals with Frame Collision –

Token ring

Character counting (how many are left to transfer)

Byte /Bit Stuffing only allowing certain number of bits/bytes to be transferred at a time

Layer 3 – Network Layer: Post Office

Packets – Like a letter in the mail has parts that are formatted a certain way. TTL Where it came from Where its going too.

Decides routes for data:

Broadcast

Multicast

Unicast

Link State

Vector

Layer 4 – Transport Layer: Package size and trucks

Encryption

Connections – in the sense for reassembling

Breaks up and assembles data into packets

Next get hazy as they blend together.

Layer 5 – Session Layer: Delivery reservations

Layer 6 – Presentation Layer: The assembled letter

Layer 7 – Application Layer: You the reader

Computers do these billions of times a second and still maintain data integrity