Influnza + HIV → Nucleus

pox → cytoplasm

Segmented → Influnza + rota (−)ssRNA dsRNA → transcribed separately to produce monosistronic mRNAs (indivisuall proteins)

ss DNA → parvo

ds RNA → rota.

- For viruses with RNA genomes in particular, genome replication and the expression of genetic information are inextricably linked, so both are taken into account.

Monocistronic
- segmented → Influnza + rota (−)ssRNA dsRNA
- non-segmented → Rhabdoviruses. (−)ssRNA

polycistronic
- (+)ssRNA (picorna, Hepatitis A)
- (+)ssRNA (Retroviruses (HIV))

reverse transcription
- HIV
- Hepatitis B

ssDNA → complementary strand
- → mRNA → proteins
- → ssDNA (viral genome)

dsRNA
- (+)ssRNA as a template → (−)ssRNA → (+)ssRNA
- (−)ssRNA as a template → (+)ssRNA → proteins (mRNA)

(+)ssRNA act as mRNA → poly protein product

(−)ssRNA
- segmented → monocistronic mRNA
  - → protein
  - → (−)ssRNA (viral genome)
- non-segmented → (+)ssRNA
  - → protein
  - → (−)ssRNA (viral genome)

(+)ssRNA with DNA intermediate → (reverse transcription) → DNA-RNA intermediate
- ssDNA → dsDNA → (integrase enzyme) → dsDNA (in the host genome) → mRNA (also act as viral genome) → poly protein product.
- (+)ssRNA → break down by RNase H

dsDNA → complete dsDNA → (+)RNA
- → proteins
- → DNA-RNA intermediate
  - (+)RNA (RNase H)
  - (−)ssDNA → partial dsDNA

(+)RNA (reverse transcriptase)