Spectral Web App

http://cimss.ssec.wisc.edu/education/apps/bandapp/overview_goes-r.html

Note: The link above uses simulated imagery. To the eye, it might seem artificial – because it is! But it behaves the same way as GOES-R imagery will.

(1) Use the left and right arrows on the keyboard to click through to different channels/wavelengths.
    a. How many visible channels are there (between 0.4 and 0.7 μm)
    b. How many Near-infrared channels? (> 0.7 μm but less than 3 μm)
    c. How many infrared channels?
    d. How many of the infrared channels are 'water vapor' channels (6.5 μm to 7.5 μm)
(2) Which channels allow you to see the surface?
(3) The 'Show Annotation' toggle (underneath the imagery) will turn on text to highlight different features. Toggle through the different channels
    a. When the annotation says 'Cooler due to carbon dioxide absorption' (13.3 μm / Channel 16) or 'Cooler due to Ozone Absorption' (9.6 μm / Channel 12) or 'Cooler due to Water Vapor Absorption' (6.2 μm / Channel 8) – what does that mean, exactly?
    b. How can you tell it's cooler from the greyscale enhancement?
(4) Click 'Show Interactive Chart' (Note it changes to 'Hide Interactive Chart' when you do this – and you can drag the chart around). Move the cursor around the imagery. In the infrared, are dark regions always warmer than bright regions?
    a. Which of the visible/near-infrared bands has the smallest dynamic range (that is, its maximum and minimum are closest together). This *should* be consistent with emitted radiation – is it?

http://cimss.ssec.wisc.edu/goes/webapps/bandapp/overview_ahi_first_light.html

This uses the first data distributed from AHI. You can answer the same questions as were asked above – note that AHI and ABI have different channels!