1. Klaus uses subjective judgement – based on a feeling or hunch. Even though the die continuously showed even, he has a feeling it will be odd on the next roll.

    Joanna uses experimental probability. She is basing her prediction on the actual experiments results. An even number occurred on every roll so far, so she continues to think the next roll will be even too.

    Nicholas uses theoretical probability. When rolling a die, there is always a 50% chance of getting an even number and a 50% chance of getting an odd number. Both are equally likely.

2a) Jenna is assuming she will play just as good at tonight's game as in previous games. She is also assuming that she won't be sick or get injured. Also that the other team has the same skill level as previous teams.

 b) If Jenna is sick or injured she probably won't score a goal. If the other team is stronger than previous teams, she probably won't score a goal either. However, if the other team is weaker than maybe Jenna will score more goals.

3a) Cultural Sensitivity – not everyone celebrates Halloween.

 b) Use of Language – the way it's worded. What does "often" mean? This word may have a different meaning for different people. Is it, once a day? Twice a day? Once a week?

 c) Timing – 6 months after the last check up might be too long for people to remember and give accurate answers on their last appointment.

4a) Census – is the whole population which should be done when tuning the strings on a guitar. Every string should be tuned.

 b) Sample – a representative portion of the population because asking everyone about traffic laws would be too difficult, time consuming, expensive and almost impossible to do.

 c) Sample – it would be impossible to ask everyone who tried a new recipe their thoughts on it. It would be impossible to even keep track of everyone who bought the recipe book.

5a) Self-Selected sampling – people volunteer to take part in the survey. Therefore, results might be biased because only people with strong opinions will take part in the survey.

c) Systematic sampling – there's a pattern of asking every 10th person. This will probably give good results because it's different people, different age/race/culture, different times of the day and people with a variety of food preferences.

6. Use of Language – what people interpret as a litter problem can mean different things to different people. Also she is only asking houses on her street. A neighbourhood is bigger than just one street and may even have apartment buildings. Many people are left out of her survey so results will not be valid.