How much water flows through a faucet at different openings?

1. What is the independent variable?
   1. The amount of water that flows
   2. The size of the faucet opening
   3. The type of material the faucet is made out of
   4. The pressure of the water
   5. Both C and D are correct
2. What is the dependent variable?
   1. The amount of water that flows
   2. The size of the faucet opening
   3. The type of material the faucet is made out of
   4. The pressure of the water
   5. Both C and D are correct
3. What is the constant?
   1. The amount of water that flows
   2. The size of the faucet opening
   3. The type of material the faucet is made out of
   4. The pressure of the water
   5. Both C and D are correct

Is a classroom noisier when the teacher leaves the room?

1. What is the independent variable?
   1. The number of students in the room
   2. How quiet or noisy the room is
   3. Whether the teacher is inside or outside the classroom
   4. The size of the room
2. What is the dependent variable?
   1. The number of students in the room
   2. How quiet or noisy the room is
   3. Whether the teacher is inside or outside the classroom
   4. The size of the room
3. What is the constant?
   1. The number of students in the room
   2. How quiet or noisy the room is
   3. Whether the teacher is inside or outside the classroom
   4. The size of the room
   5. Both a and d are correct

Who listens to music the most: teenagers or their parents?

1. What is the independent variable?
   1. Group sample: teenagers or parents
   2. The type of school teenagers and parents went to
   3. The amount of music teenagers and parents listen to
   4. The type of music played to both teenagers and parents
2. What is the dependent variable?
   1. Group sample: teenagers or parents
   2. The type of school teenagers and parents went to
   3. The amount of music teenagers and parents listen to
   4. The type of music played to both teenagers and parents
3. What is the constant?
   1. Group sample: teenagers or parents
   2. The type of school teenagers and parents went to
   3. The amount of music teenagers and parents listen to
   4. The type of music played to both teenagers and parents

Do different water temperatures affect the rate at which sugar dissolves in water?

1. What is the independent variable?
   1. The type of sugar being used (brown or white)
   2. The water temperature
   3. The type of container used to perform the experiment
   4. The rate at which sugar dissolves
2. What is the dependent variable?
   1. The type of sugar being used (brown or white)
   2. The water temperature
   3. The type of container used to perform the experiment
   4. The rate at which sugar dissolves
3. What is the constant?
   1. The type of sugar being used (brown or white)
   2. The amount of sugar added on each trial
   3. The water temperature
   4. The rate at which sugar dissolves
4. An experiment for a new asthma medication was set up into two groups. Group one was given the new drug for asthma, while group 2 was given a sugar pill. The sugar pill serves as a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. Control c. Dependent variable
   2. Constant d. Hypothesis
5. Darwin thinks that K9Advantix will keep flea population on dogs at a lower level than Frontline Plus for a longer period of time. Which of the following is the control group?
   1. Dogs that were treated with K9Advantix
   2. Dogs that did not receive any medication
   3. Dogs that received Frontline Plus
   4. All of the above

Lulu found snails in her aquarium. She thinks that having live plants in the aquarium helps support the snail population

1. How do you think Lulu should set up her experiment?
   1. She should have some aquariums without live plants and some aquariums with live plants
   2. All of her aquariums should have live plants
   3. None of her aquariums should have live plants
   4. None of the above
2. What do you think is the constant in this experiment?
   1. The amount of snails
   2. The amount of live plants
   3. The temperature of the water
   4. All of the above
3. What is the independent variable in this experiment?
   1. The size of the aquariums
   2. The temperature of the water
   3. The snail population
   4. The live plants
4. What is the dependent variable in this experiment?
   1. The size of the aquariums
   2. The temperature of the water
   3. The snail population
   4. The live plants

Edward wants to know if rats sleep longer when they have aspen bedding or when they have newspaper

1. What is the control group?
   1. The rat group with the aspen bedding
   2. The rat group with the newspaper
   3. The rat group without any bedding
   4. None of the above
2. What is the dependent variable?
   1. The type of bedding
   2. The amount of time that rats sleep
   3. The breed of the rats
   4. The amount of food the rats eat

McKenzie discovers a worm colony in her garden. The garden soil is a mixture of peat and manure. McKenzie wants to know if adding either clay or sand to her soil will cause the worm population to increase faster

1. What is the control group?
   1. The group with peat and manure
   2. The group with peat, manure and clay
   3. The group with peat, manure and sand
   4. The growth of worm population
2. What is the dependent variable?
   1. The amount of water worms drink
   2. The length of the worms
   3. The type of soil
   4. The growth of worm population