Testable Questions

Consider each topic below, then:

(1) write a testable question related to the topic using the formula:

   \textit{How does} \, \text{___________} \, \text{affect} \, \text{___________} \, ?

(2) identify the independent and dependent variable.

(3) compose a hypothesis related to your question using the formula:

   \text{IF the independent variable changes in \textit{this} way, THEN the dependent variable will change in \textit{this} way BECAUSE of \textit{this} reason.}

The first topic has been completed for you as an example.

1. Sunlight waking you up in the morning

Testable question: \textit{How does the amount of sunlight in my room affect the time at which I wake up in the morning?}

Independent variable: \textit{sunlight}

Dependent variable: \textit{the time I wake up in the morning}

Hypothesis: \textit{If there is more sunlight in my room early in the morning, then I will wake up earlier because I have trouble sleeping when my room is full of light.}

2. Springtime rainfall and the emergence of dandelions

Testable question: ________________________________________________________________

Independent variable: ____________________________________________________________

Dependent variable: _____________________________________________________________

Hypothesis: __________

_____________________________________________________________________________
3. Insect populations and insectivorous bat populations

Testable question: ________________________________________________________________

Independent variable: ____________________________________________________________

Dependent variable: _____________________________________________________________

Hypothesis: ___________________________________________________________________

______________________________________________________________________________

4. Freckles appearing on your face in the summer

Testable question: ________________________________________________________________

Independent variable: ____________________________________________________________

Dependent variable: _____________________________________________________________

Hypothesis: ___________________________________________________________________

______________________________________________________________________________

5. Lake water temperature and the average size of largemouth bass

Testable question: ________________________________________________________________

Independent variable: ____________________________________________________________

Dependent variable: _____________________________________________________________

Hypothesis: ___________________________________________________________________

______________________________________________________________________________