Inheritance

Make sure inheritance models the *is-a* relationship

The main guiding philosophy is that inheritance should be used only when a subclass *is-a* superclass.

```
Animal

Bird
```
Composition

Compose by making a class an *instance* of another class (instead of a subclass)

Class Bird {
  private:
    EatingPattern *ep;
  
  Bird::Bird()
  {
    ep = new EatingPattern;
  
  
  
}
Favor composition over inheritance

```cpp
Bird::Bird() {
    ep = new EatingPattern();
}

bird = new BirdEatingPattern;
```
Composition

- Fosters reuse
- Keeps class libraries shallow
- Keeps encapsulation strong
- Enables runtime binding