Water Quality - the physical, chemical and biological characteristics of water in relationship to a set of standards.

- a relative comparison of some measurable property/characteristic of water to some ideal or desired value for a specific purpose and/or location
- Who determines ideals?

· Scientists (& EPA)
· governments

Factors that influence water quality?

· Rocks - block erosion, increase erosion water movement
Plants · Humans

Why is it important to study water quality?

- important for life (animals that use it)

How would you measure water quality?

· pH
· temperature
· flow of water
· nutrients
· turbidity
· dissolved oxygen
· density
(water properties)

* Physical & Chemical parameters
* Biological (species abundance, diversity)

If you took the temperature of your visualized water sample would you get....

...a value (measurement) close to the true temperature of the creek?

- body temp
- how you transport the sample
- where the sample is taken
- transport time
- sun
- amount of water sampled

...a values (measurements) that would be in agreement with each other?

NO

Standarized Technique
- hold sample by two fingers
- take sample at surface, arm length
- 2 minutes
- fill bottle
- 30 sec with thermometer

Measurements

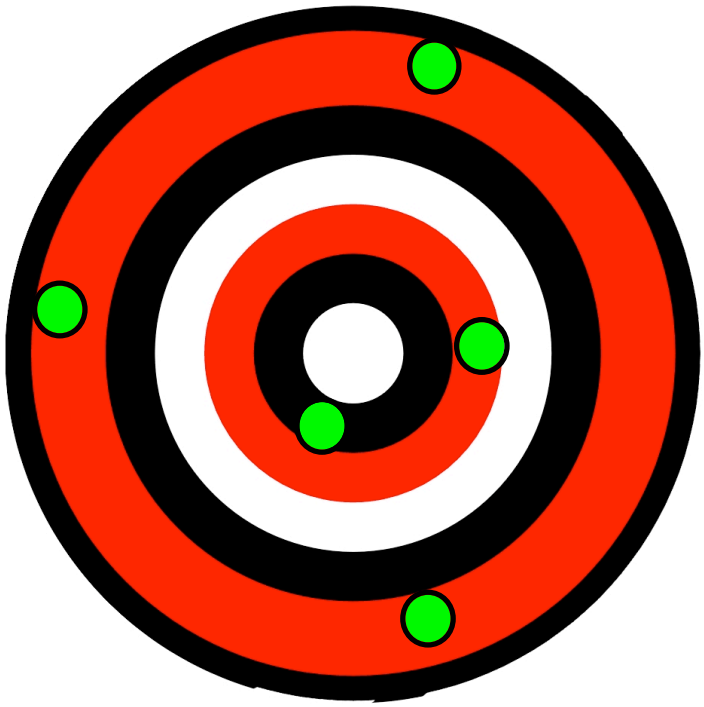
Accuracy

- close to the true value

Precision

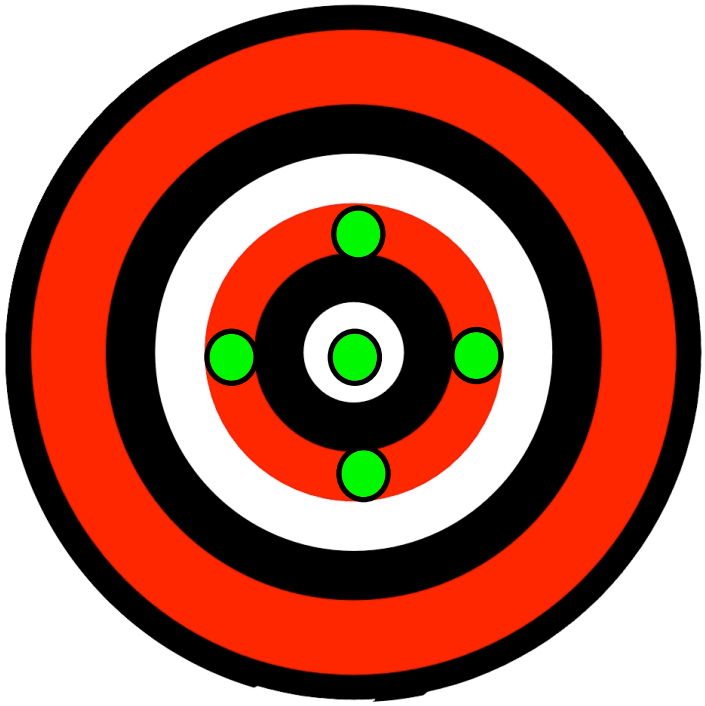
- the degree that measurements give the same result
- repeatable

Not Accurate
Not Precise

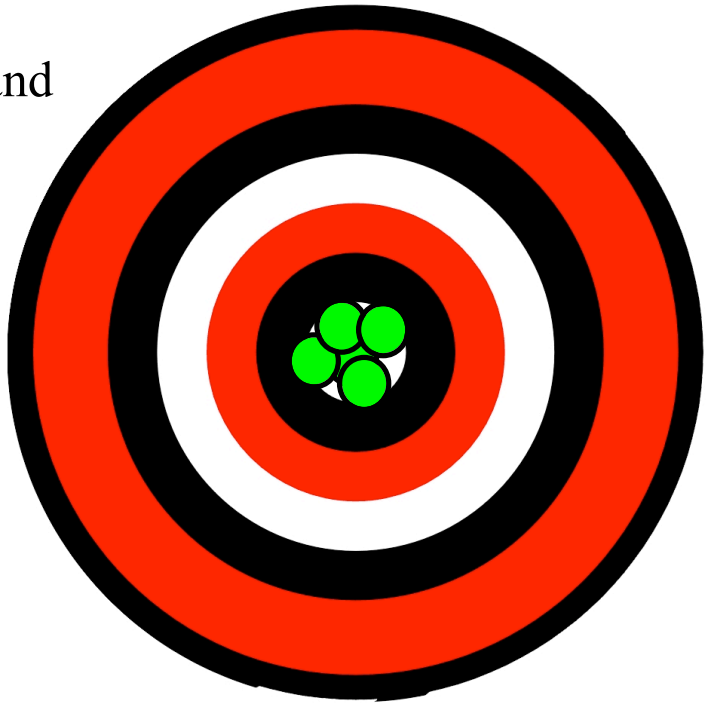


Precise
Not Accurate

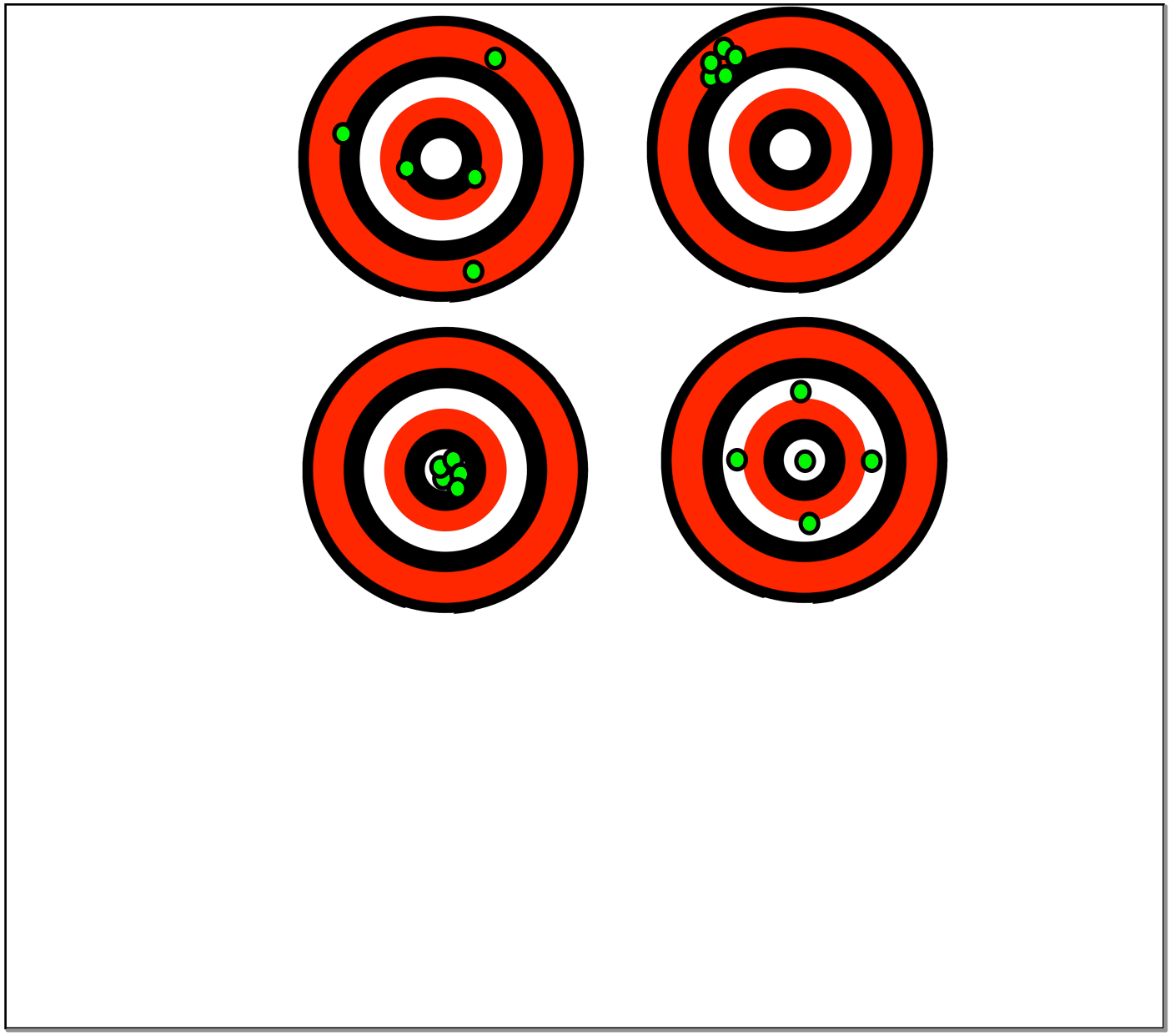
Accurate
Not Precise

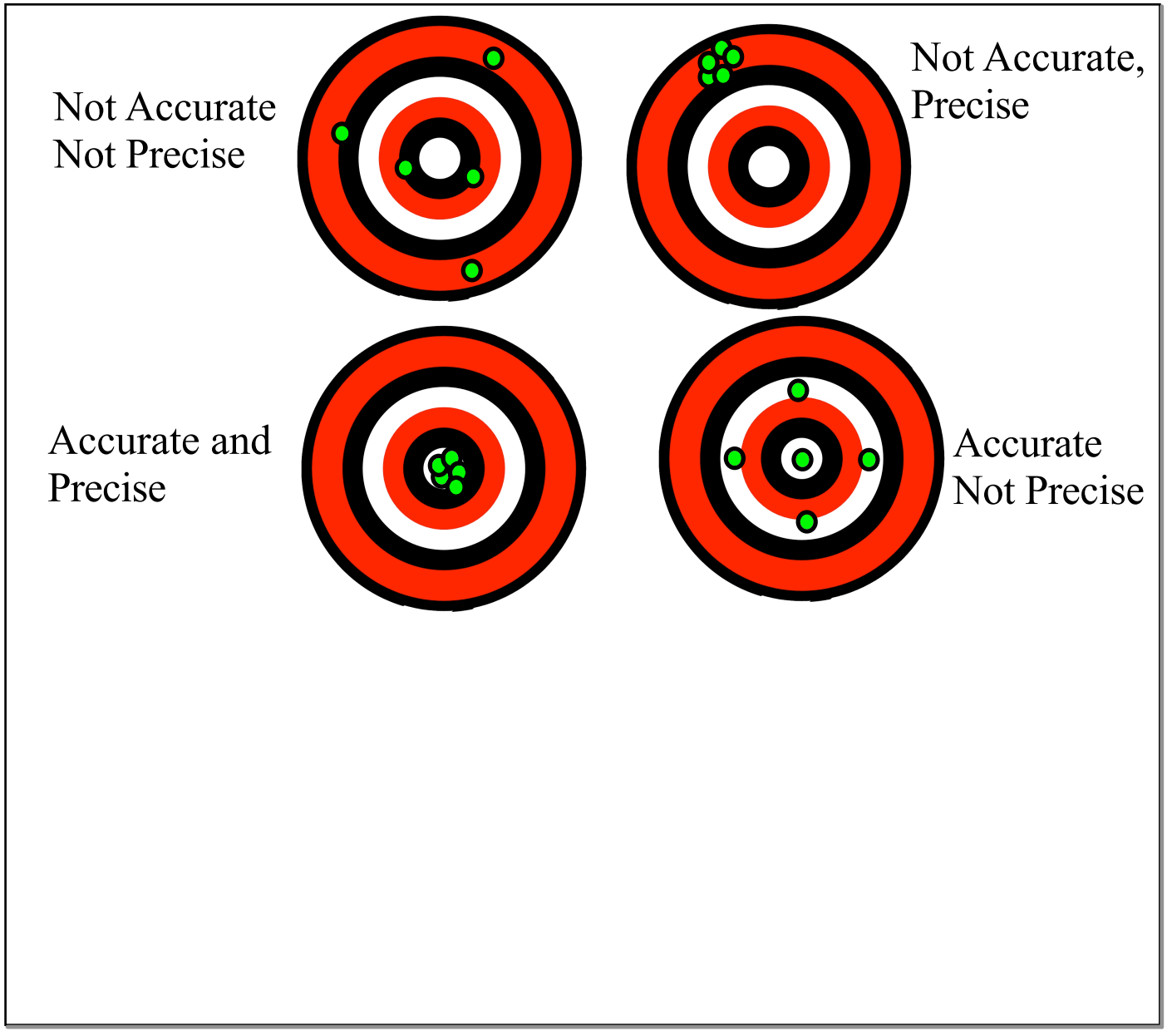


Accurate and
Precise



November 17, 2008




Not Accurate
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Not Accurate,
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