Define average speed

What is the difference between distance and displacement?

State examples of scalars and vector quantities.

What is the difference between a vector and a scalar?

# Vectors & Scalars

Describe how to calculate the resultant of two vectors at right angles

Define instantaneous speed

Define velocity

Units of distance and displacement

Relationship for velocity, displacement and time

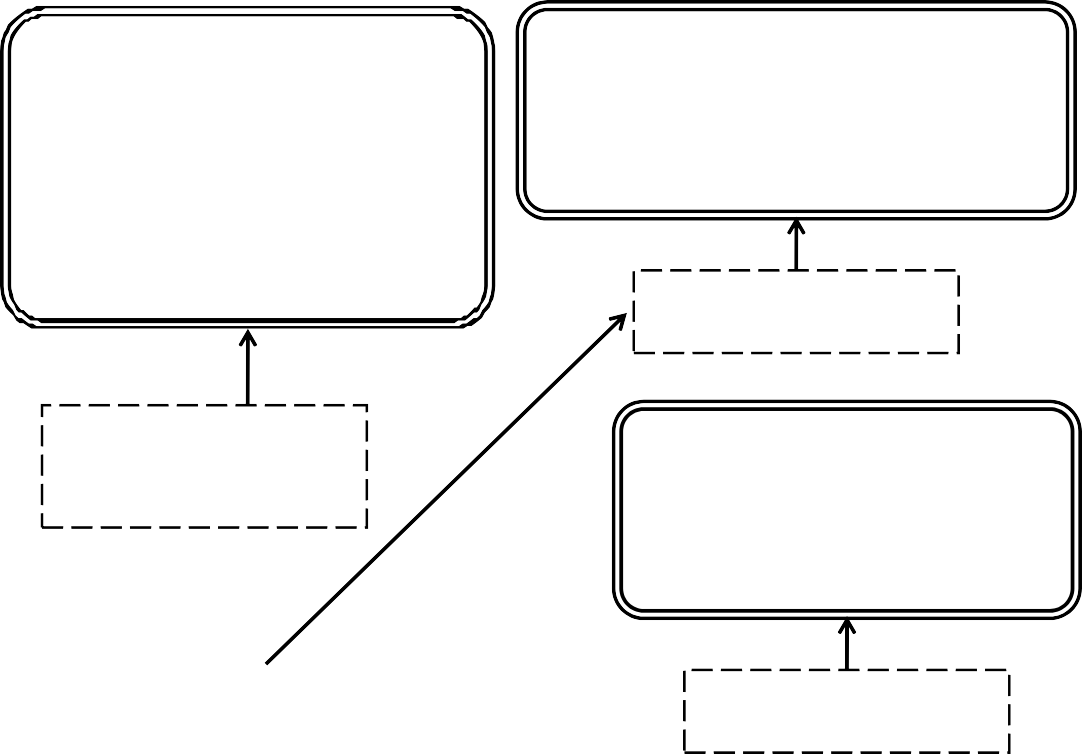
Relationship for speed, distance and time

Relationship for average velocity, displacement and time

Describe an experiment to measure instantaneous speed

Units of speed & velocity

Describe an experiment to measure average speed



Relationship to calculate acceleration

Units of acceleration

Define acceleration

Describe an experiment to measure acceleration

# Acceleration &

Describe how to determine the distance travelled from a v-t

graph

**v-t graphs**

Sketch a v-t graph for an object with a constant speed



Sketch a v-t graph for an object with a constant deceleration

Describe how to determine acceleration from a v-t graph

Sketch a v-t graph for an object with a constant acceleration

Weight

What can forces change about an object?

State Newton’s First Law of motion

Units of force

Gravitational field strength

Mass

Define Relationship to calculate weight

State the relationship for Newton’s Second Law of motion

# Newton*’*s Laws

What is the gravitational field strength on Earth?

What is freefall? Explain it using Newtons laws

State Newton’s Third Law of motion

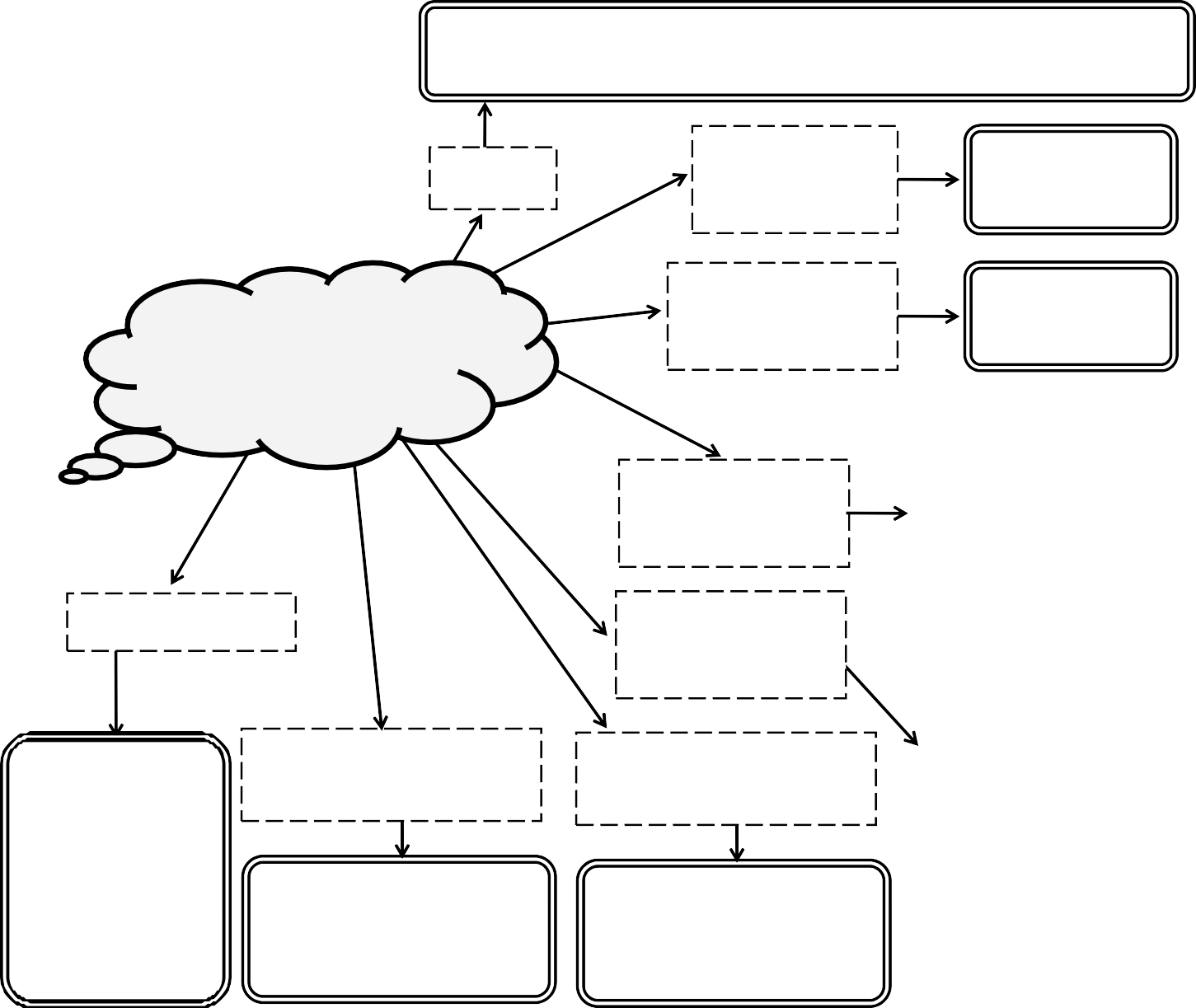
What is friction?

What is terminal velocity? Explain it using Newtons laws

Describe the motion of an object when forces are unbalanced

Describe the motion of an object when forces are balanced

Give an example of Newton’s Third Law of motion



Work Done

Gravitational Potential Energy

Kinetic Energy

State the Law of

Describe and explain the vertical motion of a projectile

Describe and explain the horizontal motion of a projectile

Conservation of Energy

Define

Sketch a v-t graph of the horizontal motion of a projectile

# Projectiles &

**Energy**

Units of Energy

Sketch a v-t graph of the vertical motion of a projectile

State the relationship for...

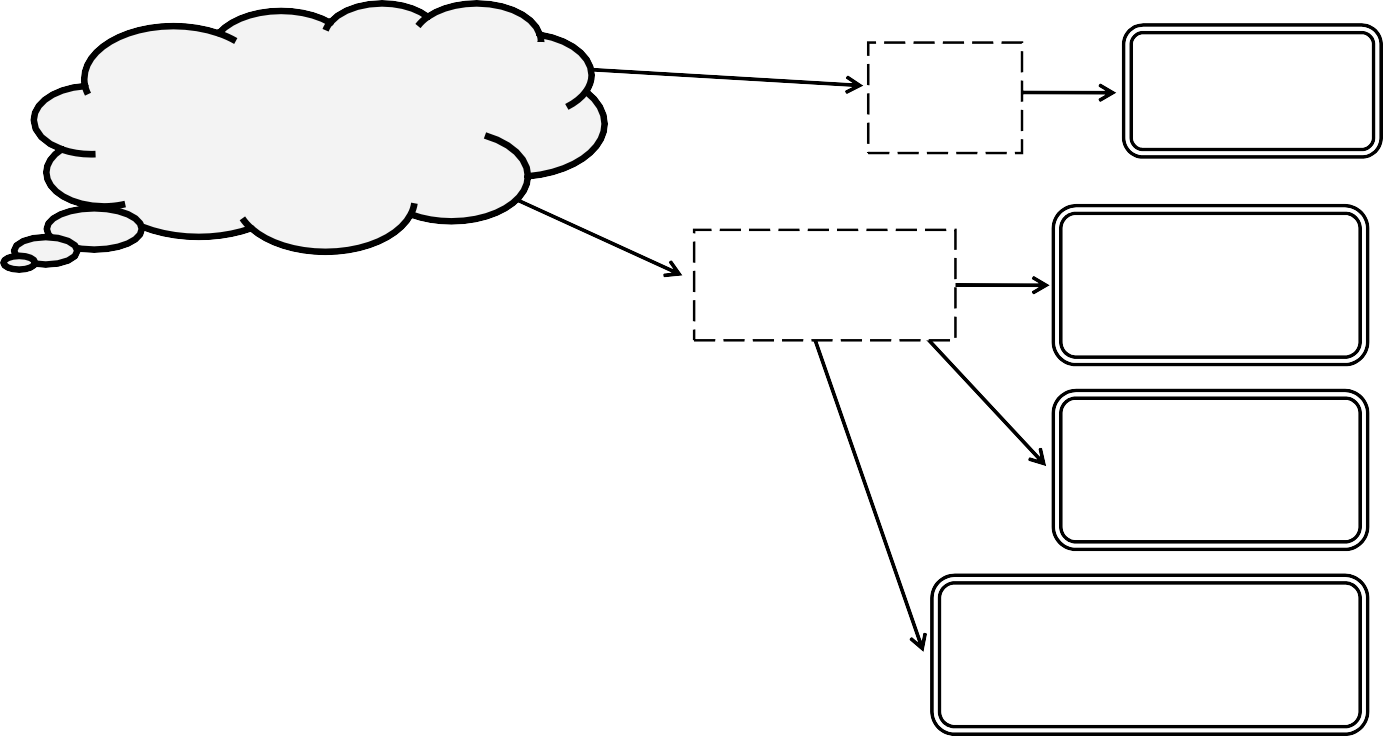
Work Done

Relationship required to calculate the distance travelled by a projectile

Sketch the shape of the path of a projectile

Describe how to calculate the vertical height of a projectile

Kinetic Energy



Gravitational Potential Energy

Relationship required to calculate the final vertical speed of a projectile