Lesson 1 – What are Simulations?

Aim

- To find out what a simulation is and understand the purpose of simulations.

Success criteria

- Pupils know that a computer simulation can represent real and imaginary situations.

- Pupils can give some examples of simulations used for fun and for work.

- Pupils can give suggestions of advantages and problems of simulations.

A computer simulation is a program that models a real-life situation. They let you try things out that would be too difficult or too dangerous to do in real life..

A simulation might be used where the real-life situation:

- Is too dangerous

- takes too long

- is too quick to study

- is too expensive to create.

Can you think of examples of simulations you may know?

What are simulations used for?
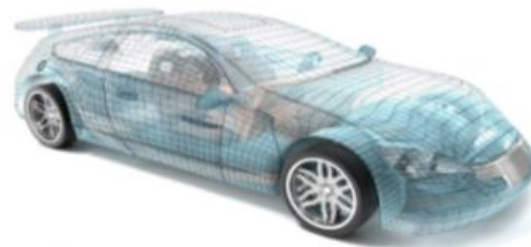
What are the benefits of simulations?

- It allows you to train for something without doing it for real.

- It allows you to test out dangerous situations, e.g. travel into space.

- You can test out the effect of different actions, e.g. in a flight simulation you can test what will happen if you turn at a certain angle, speed up/slow down, etc. In a virtual pet simulation, you can change the amount of exercise/food/attention you give your pet and see the effect on the pet.

What are the problems with simulations?

- They are often too simple; unexpected problems can still occur in real life.
- They can be very expensive.

Now complete your 2Do