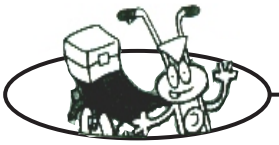
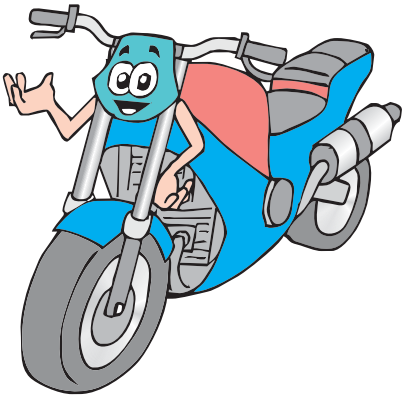


Thinking Machines

Computers in storybooks and on TV have exciting personalities and can do everything humans can do and even more. However, in real life, things aren't like that.

Some computers appear to have human powers of reasoning and logic. However, machines can't really think in ways that people can. When a computer seems clever, it just means that the programmer is intelligent.

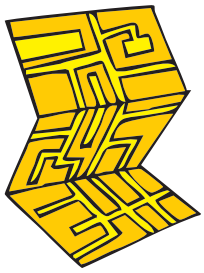


Dummies of before

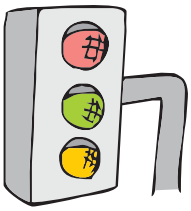
Computers can follow instructions only. Most of the things that people do every day, even the ones that we think are very simple, are so complex to them that it would be impossible to explain as a set of instructions.

The robot below has been programmed to carry packages across a busy town. However, the program isn't good enough.

Robobike is programmed to do all these things:

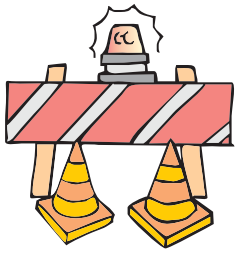


Read maps.



Stop and go at traffic lights.

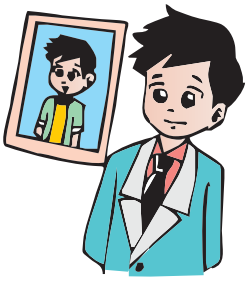
Use cycle lanes.



Find the fastest alternative route if a road is closed.

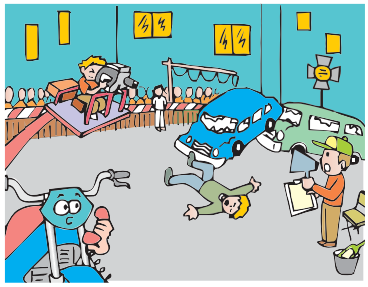
Change direction around obstacles and broken glass.

Phone an ambulance if there's an accident.

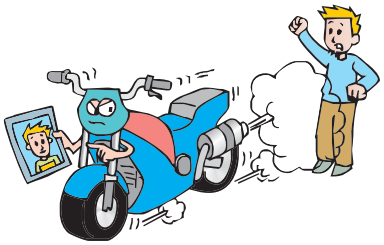


Recognize the receiver of the package by matching his face with a pre-scanned photograph.

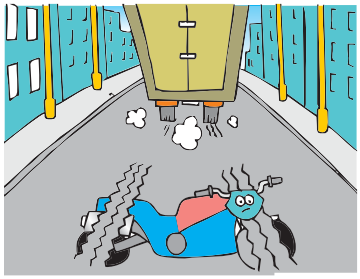
However, despite all these instructions, all sorts of things can and do, go wrong.



On his way, robobike passes the filming of a car crash for a TV drama. The robot, not recognizing cameras, calls for an ambulance.



On arrival, the receiver tries to collect his parcel. Robobike won't release it. The receiver has grown a beard over the weekend, so he can no longer match the robot's photographic image.



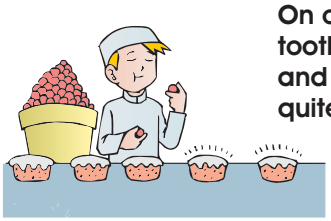
On the way back, a traffic light gets stuck on red. The robot waits there for hours, and eventually it is run over by a truck.

Robobike has failed. A person could have copedup with these new situations as they arise. But when it comes to taking decisions in unexpected circumstances, computers are no good.

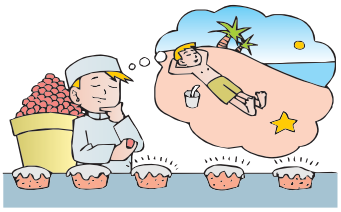
Computers are only good at tasks, which never vary and are identical every single time they are done, but when they are good, they are very, very good. They can be much quicker and more reliable than human beings.

Mike works in a factory. His job is to put a cherry on the top of currant buns.

Some days, if he watched too much TV, his eyes go a bit blurry and the cherry doesn't end up exactly in the middle.



On other days, his sweet tooth gets the better of him, and some cherries never quite make it to the buns.



And a lot of the time, he daydreams about his summer holiday and forgets the cherries altogether.

The cherry-placing process is a repetitive task which can be done by following a set of instructions. This makes it ideal for a robot, which will never be tempted to eat the cherries or doze off.
All the jobs that computers can do well are ones that can be broken down into a limited number of rules and commands. Even chess, which we think as a game for the brainy, is actually a game of rules which a computer can be "taught".

The present and future

Will the scientist ever be able to put enough rules into a computer so it can make decisions like a human being? Some scientist thinks they cannot. Others believe that, as more is understood about how the human brain works, scientists will be able to use this knowledge to make the first truly intelligent computers.

The Equilibrium

Lesson 11

Score

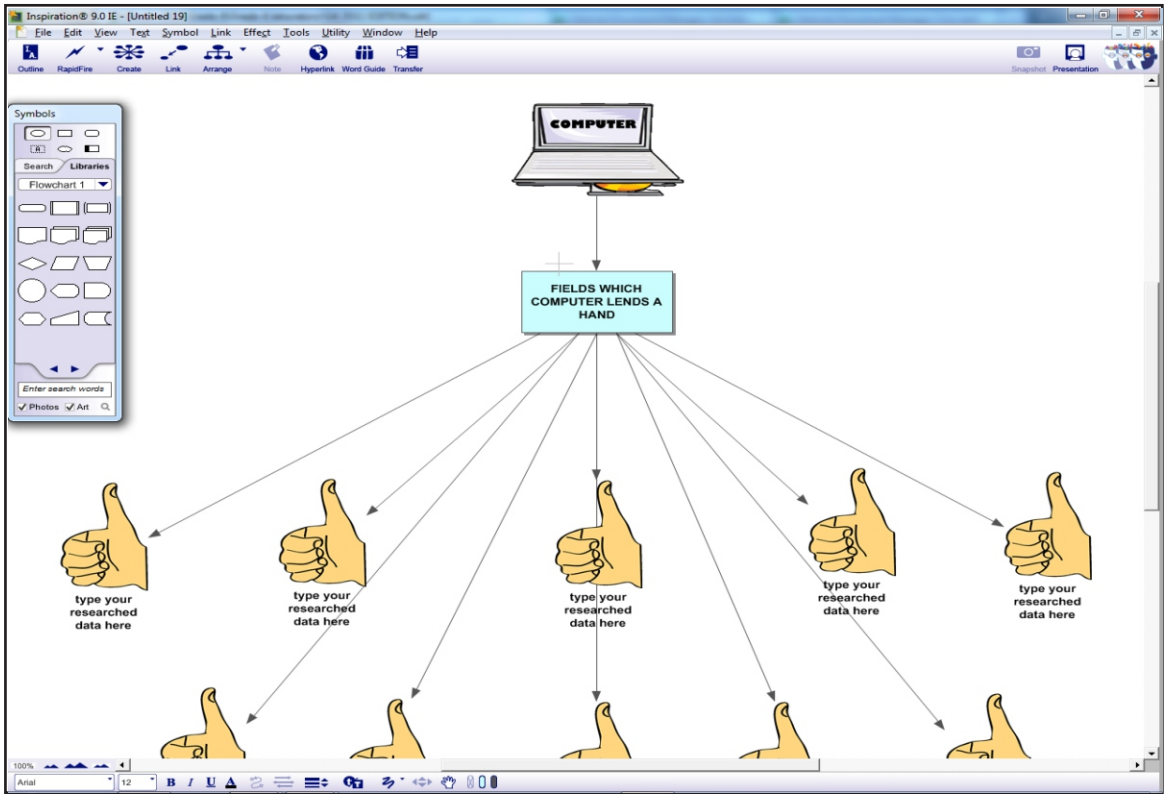
Activity 28

Directions:

1. Launch Inspiration.
2. Open and perform Lesson 11 Activity 28 **The Equilibrium.**
3. Research for ten fields where computers are very useful in doing things easily and conveniently.
4. Type your answers in the given symbols. Use Encarta Kids or Microsoft Student for your research.

Note: Click the Main topic to show its subtopics. Furthermore, click the upper-right portion of the symbol.

Preview:



5. Save the activity as **The Equilibrium**.

Dummies of Before

Lesson 11

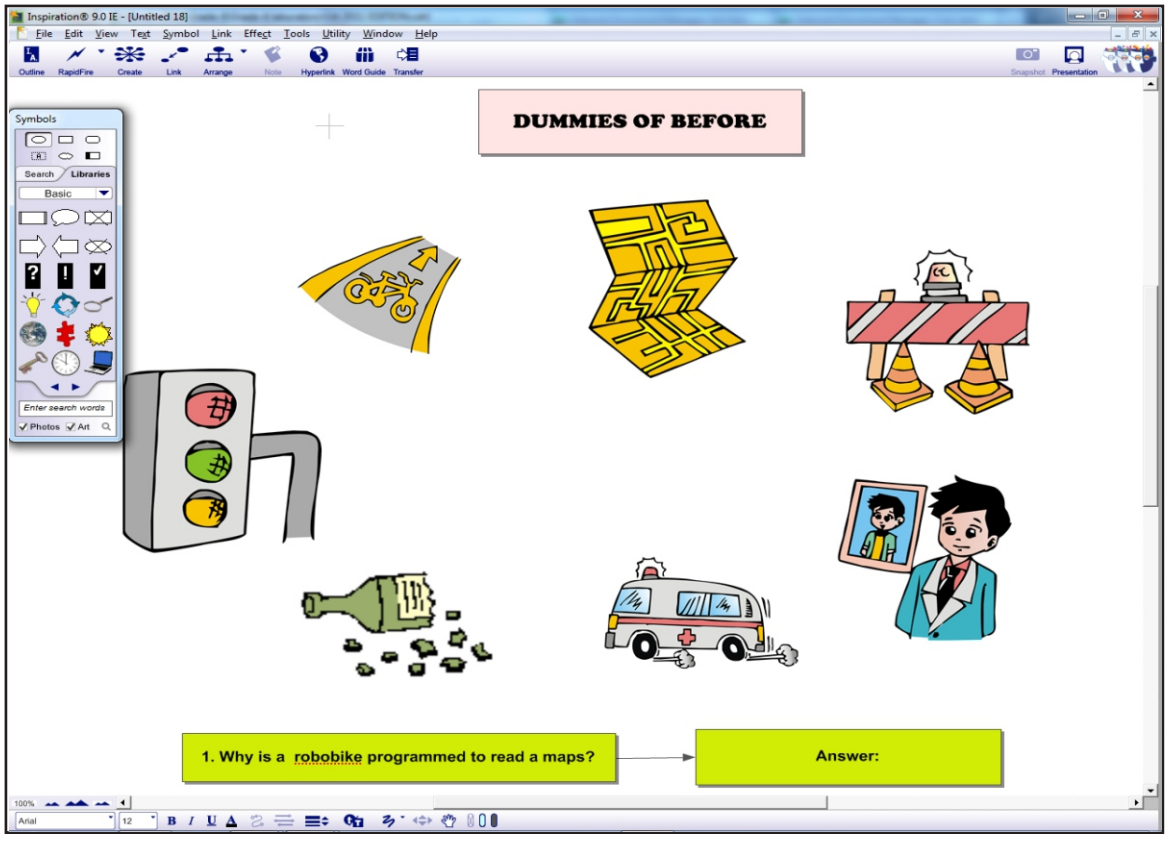
Score

Activity 29

Directions:

1. Launch Inspiration.
2. Open and answer Lesson 11 Activity 29 **Dummies of Before**.
3. Name the objects that Robobike is programmed to carry across a busy town.
4. Answer the given questions by using the Link tool.

Preview:



5. Save the activity as **Dummies of Before**.

Think Directly

Lesson 11

Score

Activity 30

Directions:

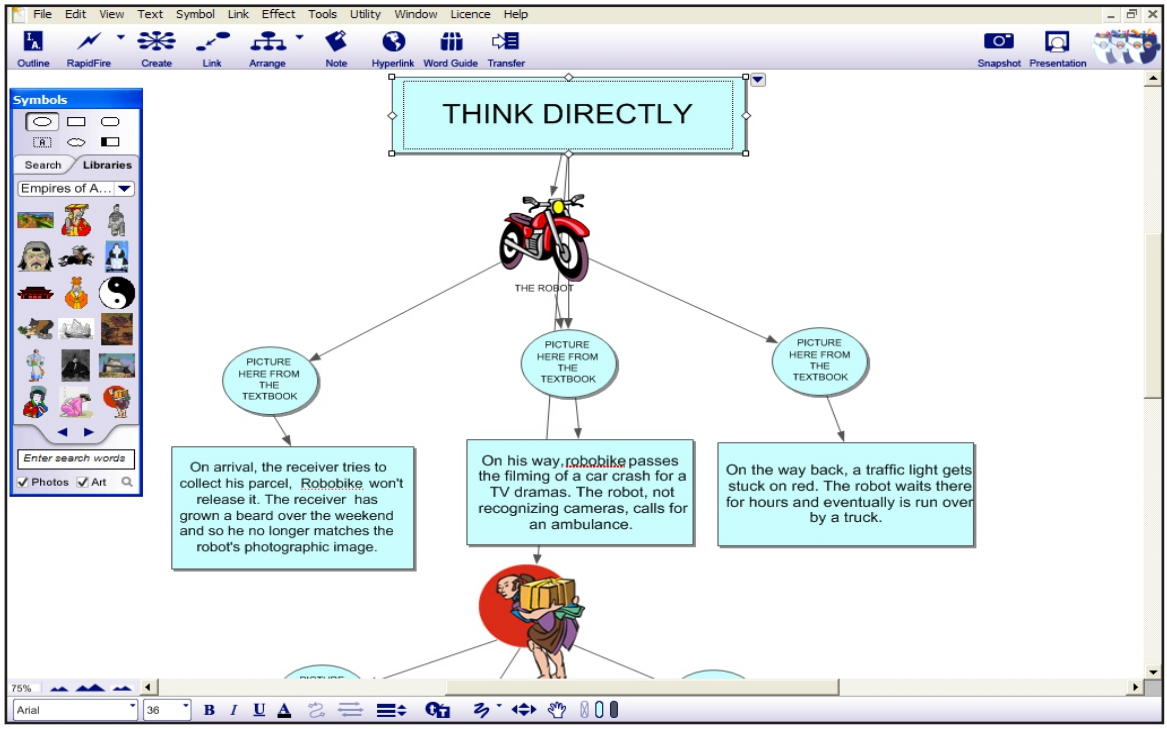
1. Launch Inspiration.
2. Open and answer Lesson 11 Activity 30 **Think Directly**.
3. Underline the direct object of each statement.

A **direct object** is a word that follows a transitive verb and completes its meaning. It answers the question how or what. A direct object is always a noun or pronoun.

Example: We built a doghouse. Doghouse is the direct object because it answers the question, 'built what?".

Note: You can hide the subtopic by clicking the upper-right portion of the Main Topic symbol.

Preview:



4.Save the activity as **Think Directly**.