KINDERGARTEN SCIENCE CHECKLIST
Goals 11 – 13
Illinois Learning Standards A-F

KNOWING AND APPLYING THE CONCEPTS, PRINCIPLES AND PROCESS OF SCIENTIFIC INQUIRY

Benchmarks

_____ Use senses to explore and observe materials.

_____ Begin to develop questions on scientific topics, such as natural phenomena.

_____ Seek information through observation, exploration, and investigations.

_____ Collect, describe, compare and record information.

Descriptors

_____ Take apart a flashlight to see what is inside.

_____ Investigate phenomena observed, such as plants growing, the effect of pollination or change in the seasons.

_____ Inspect an object and comment on its features (e.g., a bird's nest, a chrysalis and a plant.

_____ Become more accurate and precise when recording observations (e.g., counting a number of ridges on a shell or trying to use all of the senses when observing.

KNOW AND APPLY THE CONCEPTS, PRINCIPLES AND PROCESS OF TECHNOLOGICAL DESIGN

Benchmarks

_____ Use simple tools and equipment to enhance observation and gather data.

_____ Become familiar with the use of devices incorporating technology.

Descriptors

_____ Collect information using a variety of tools.

_____ Use technology to problem solve.

KNOW AND APPLY CONCEPTS THAT EXPLAIN HOW LIVING THINGS FUNCTION, ADAPT AND CHANGE

Benchmarks

_____ Observe, categorize and describe characteristics, basic need and life cycles.

_____ Show an awareness of changes that occur in themselves and their environment.

Descriptors

_____ Sort a collection into two categories: living things and non-living things.

_____ Describe changes in nature throughout the year.

KNOW AND APPLY CONCEPTS THAT DESCRIBE HOW LIVING THINGS INTERACT WITH EACH OTHER AND THEIR ENVIRONMENT

Benchmark

_____ Describe and compare basic needs of living things.

Descriptors

_____ Compare the needs of a variety of living things.

KNOW AND APPLY CONCEPTS THAT DESCRIBE PROPERTIES OF MATTER AND ENERGY AND THE INTERACTION BETWEEN THEM

Benchmarks

_____ Identify, describe and compare properties of objects (e.g., size, shape and color).

Descriptors

_____ Describe similarities and differences among objects.

KNOW AND APPLY CONCEPTS THAT DESCRIBE FORCE AND MOTION AND THE PRINCPLES THAT EXPLAIN THEM

Benchmarks

_____ Describe the effects and forces in nature.

Descriptors

_____ Explore simple forces around us (e.g., wind, gravity and magnetism).

KNOW AND APPLY CONCEPTS THAT DESCRIBE THE FEATURES AND PROCESSES OF THE EARTH AND ITS RESOURCES

Benchmarks

_____ Begin to observe and describe simple seasonal and weather changes by using common weather-related vocabulary (e.g., rainy, snowy, sunny, and windy).

_____ Understand the purpose of recycling.

_____ Explore and describe properties of rocks, soils, water and air.

Descriptors

_____ Name the four seasons and realize that they form a pattern.

_____ Talk about weather being colder in winter than in summer or describe daily weather conditions appropriately in conversation.

_____ Participate in recycling.

_____ Describe the differences between solids and liquids.

KNOW AND APPLY CONCEPTS THAT EXPLAIN THE COMPOSITION AND STRUCTURE OF THE UNIVERSE AND THE EARTH'S PLACE IN IT.

Benchmarks

_____ Identify, observe and describe basic concepts associated with night/day and seasons.

Descriptors

_____ Compare the characteristics of night and day.

_____ Describe the different characteristics of the seasons.

KNOW AND APPLY THE ACCEPTED PRACTICES OF SCIENCE

Benchmarks

_____ Begin to understand and use basic safety practices.

_____ Use observation skills to learn and to document changes in science.

Descriptors

_____ Practice appropriate safety procedures.

_____ Observe various processes and hypothesize answer to "why" and "what" questions.

KNOW AND APPLY CONCEPTS THAT DESCRIBE THE INTERACTION BETWEEN SICENCE, TECHNOLOGY AND SOCIETY

Benchmarks

_____ Express curiosity and ask questions about their world.

_____ Recognize common scientific instruments.

_____ Form explanations and communicate scientific information.

_____ Begin to be aware of technology and how it affects their lives.

_____ Begin to understand ways to reduce, reuse and recycle materials.

Descriptors

_____ Formulate questions about the environment.

_____ Use scientific instruments to explore the environment (e.g., thermometer, balance and computer).

_____ Record scientific changes.

_____ Identify technology (e.g., remote control, computer and microwave).

_____ Participate in separating paper and cans for trash collection.