

Weather Graph [video]

About Empowering Preschool Quality (EPQ)

This collection was created to provide resources for early childhood professionals and the trainers providing professional development for them.

With the strong focus on early childhood education in recent years the EPQ Project is striving to meet the needs of teachers who are continually working to better serve young children. As the EPQ Project continues to grow, content will be added and revised as appropriate to meet the changing needs of teaching professionals and trainers.

As you explore this site, you will find a wealth of information including:

- [Video](#) examples of children and teachers in classroom settings that relate to specific
- Iowa Early Learning Standards ([IELS](#))
- Iowa Quality Preschool Program Standards ([IQPPS](#))
- National Association for the Education of Young Children ([NAEYC](#)) Standards and Accreditation Criteria
- A page for Trainers with resources to support their work

Although this work is based primarily on Iowa standards, the information contained in this web site is useful to early childhood professionals, consultants, or professional development providers outside of Iowa. The video examples illustrate high-quality preschool practices and will reflect the standards adopted by most states.

The EPQ Project was developed to help early childhood professionals and trainers achieve ever higher levels of excellence. You can help the EPQ Project achieve this by sharing your suggestions on how we can improve via our comment form.

NAEYC

Curriculum: Essential Characteristics

2.A.10- The curriculum guides...Ms. Fisher...to incorporate content, concepts, and activities that foster...cognitive development and that integrate key areas of content including...mathematics...and...science...

Ms. Fisher uses part of the classroom routine, checking the weather, to build science awareness and math skills. The children use a weather graph to determine what type of

weather has been the most frequent in the month. They discuss which lines are longest and shortest according to the weather patterns for the month thus far.

Curriculum Content Areas for Cognitive Development: Early Mathematics

2.F.05-Children in Ms. Fisher's class are provided varied opportunities and materials to help them understand the concept of measurement by using standard and non-standard units of measurement.

The graph detailing the month's weather that Ms. Fisher is holding provides an opportunity for children to experience reading a graph. They get a visual representation of the frequency of different weather patterns (warm day, snowy day, windy day) by looking at the bar graph the class made.

Curriculum Content Areas for Cognitive Development: Science

2.G.02- The children in Ms. Fisher's class are provided varied opportunities and materials to learn key content and principles of science such as: Earth and sky...seasons, and weather...

The weather graph in Ms. Fisher's class allows children to learn about the ever changing weather patterns. She observes that most of the days in November have been windy, but there have also been warm days and snowy days. The children can see the patterns most prevalent by the length of the lines on the graph.

IELS

10.1-Language Understanding and Use

Children understand and use communication and language for a variety of purposes.

Children in Ms. Fisher's class **initiate, listen, and respond appropriately in conversations with peers and caregivers... speak in sentences of increasing length and grammatical complexity... and...ask and answer a variety of question types.**

Ms. Fisher asks the children in her class what they see on the weather graph. Tyler notices that the line representing windy days is the longest. Reed sees that snowy days and warm days are equal on the graph. Kayleigh points out that the line representing rainy days is all by itself (no other lines are equal to it). The children answer questions such as, "What do you notice about the graph?" and "Is that line equal to any other line?".

11.1-Comparison and Number

Children understand amount, including use of numbers and counting.

The children in Ms. Fisher's **class use language such as *more or less* to compare quantities.**

Children in Ms. Fisher's class use comparative words to describe the lines on the class weather graph. The line for the windy days is the longest. Snowy and warm days are equal. Other weather days are not equal to any others.

11.6-Measurement

Children understand comparisons and measurement.

Children in Ms. Fisher's class **make comparisons among several objects based on one or more attributes (length...) and using words such as shorter, taller, bigger, smaller, heavier, lighter.**

The children looking at the weather graph with Ms. Fisher use words like "longer," "shorter," "equal," and "not equal" to describe the lines on the weather graph.

IQPPS

Curriculum: Essential Characteristics

2.9- The curriculum guides...Ms. Fisher...to incorporate content, concepts, and activities that foster...cognitive development and that integrate key areas of content including...mathematics...and...science...

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Curriculum Content Areas for Cognitive Development: Early Mathematics

2.25-Children in Ms. Fisher's class are provided varied opportunities and materials to help them understand the concept of measurement by using standard and non-standard units of measurement.

The graph detailing the month's weather that Ms. Fisher is holding provides an opportunity for children to experience reading a graph. They get a visual representation

of the frequency of different weather patterns (warm day, snowy day, windy day) by looking at the bar graph the class made.

Curriculum Content Areas for Cognitive Development: Science

2.27- The children in Ms. Fisher's class **are provided varied opportunities and materials to learn key content and principles of science such as: Earth and sky...seasons, and weather...**

The weather graph in Ms. Fisher's class allows children to learn about the ever changing weather patterns. She observes that most of the days in November have been windy, but there have also been warm days and snowy days. The children can see the patterns most prevalent by the length of the lines on the graph.

HSPS

1304.21(a)(4)(iii) - Ms. Fisher **promotes interaction and language use...between children and adults**, during this group time activity of noticing patterns on the weather graph.

Ms. Fisher asks the children in her class what they see on the weather graph. Tyler notices that the line representing windy days is the longest. Reed sees that snowy days and warm days are equal on the graph. Kayleigh points out that the line representing rainy days is all by itself (no other lines are equal to it). The children answer questions such as, "What do you notice about the graph?" and "Is that line equal to any other line?".

1304.21(c)(1)(ii) - Ms. Fisher **provides for the development of cognitive skills by encouraging each child to organize his or her experiences, to understand concepts, and to develop age appropriate...numeracy and reasoning which form a foundation for school readiness and later school success.**

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HSCOF

Language Development

Listening and Understanding

- Demonstrates increasing ability to attend to and understand conversations, stories, songs, and poems.
- Understands an increasingly complex and varied vocabulary.

Speaking and Communicating

- Develops increasing abilities to understand and use language to communicate information, experiences, ideas, feelings, opinions, needs, questions, and for other varied purposes
- Progresses in abilities to initiate and respond appropriately in conversation and discussions with peers and adults.
- Progresses in clarity of pronunciation and towards speaking in sentences of increasing length and grammatical complexity.

Literacy

Print Awareness and Concepts

- Develops growing understanding of the different functions of forms of print such as signs, letters, newspapers, lists, messages, and memos
- Shows progress in recognizing the association between spoken and written words by following print as it is read aloud.

Mathematics

Number and Operations

- Begins to use language to compare numbers of objects with terms such as more, less, greater than, fewer, equal to.

Patterns and Measurement

- Shows progress in using standard and non-standard measures for length and area of objects.