



FLIPGRID.

Building a K12 Computer Science Flipgrid Community

K12 Flipgrid integration guide

How can Flipgrid enhance Computer Science classes?

One of the major goals of a computer science class is to help students communicate effectively. Educators often report wanting to help students develop voice in order to communicate verbally what they have learned. Unfortunately, many educators have trouble finding ways to incorporate this type of instruction into their lessons. ^[1] Flipgrid is designed to do just that -- give students a fun and creative avenue to develop voice and provide educators with a simple way to integrate it in their classroom. With each video creation, students consider how they are perceived, the content of what they have shared, and are given opportunities to make changes in response to feedback. Through this process, Flipgrid helps students become stronger communicators and involved digital citizens.

Introducing Students to the Social Aspect of Flipgrid

Grades K-5

Young students typically have little experience communicating ideas to a larger audience. Flipgrid gives them both the opportunity to develop voice and to learn how to present themselves online. Repeated experience using Flipgrid increases their feelings of social connectedness and improves academic performance. ^[2] Even the youngest students have the opportunity to participate as digital citizens, and Flipgrid provides a safe environment to begin learning how to interact online. When encountering Flipgrid for the first time, young students need to know that this is a safe space where creativity is encouraged so that they can develop confidence with continued use of Flipgrid.

Grades 6-8

Many students in middle school feel especially sensitive to the evaluations of their peers (we all remember this), but those who feel supported by educators and their peers perform better academically. ^[3] Even though students may have experience with posting videos, the idea of their videos being viewed by other students may make them uncomfortable; therefore, several uses of Flipgrid may be needed before students feel more confident in their use of voice. It may be especially important to remind students that they can do as many takes as they want before posting their video. Gaining confidence in self-expression and the respect of others is important for this age group.

Grades 9-12

Students in high school may already be regular users of social media like Snapchat, Instagram, Facebook, or Twitter. The first few times students use Flipgrid, they may feel uncomfortable because the topics that are discussed on Flipgrid are likely different from the topics students voluntarily post on social media. For this reason, Flipgrid is a valuable tool to help students learn to share their thoughts on important topics. Additionally, educators may open their grids to students in other locations around the world. Open grids help students learn to respect community voice, gain a deeper understanding of citizenship, and experience a wider diversity of perspectives.

Regardless of the age of your students, one of the best ways to help students feel at ease with Flipgrid is to model it yourself by creating a video to introduce the topic and record the first video in your topic to share your thoughts.

When are you starting to use Flipgrid?

Beginning

If you want to use Flipgrid from the very beginning of the class, you can actually start using Flipgrid before your first meeting. Invite the students to introduce themselves on Flipgrid or use Flipgrid to gauge students' knowledge and experience on the general course content.

Middle

Adding Flipgrid in the middle of a class is a great way to add variety and energy to material. You may want to use Flipgrid as a way to gauge how students are feeling about the class and to gather suggestions for where they would like things to go in the future. Flipgrid can help students practice describing what they learned, explain how what they learned relates to their own experiences, and indicate areas where they need clarification or additional resources. This is a great time for students to use their voice to connect ideas to their own experiences.

End

Even if you are at the end of a class, Flipgrid can be a powerful tool to invite students to share what they learned over throughout the class and to make suggestions for improvements. Encourage students to be creative in their responses and collaborate with others both inside and outside the classroom.

Timely Uses of Flipgrid

Course Introductions

As previously mentioned, for those of you who are planning to use Flipgrid in a class that hasn't started, videos are a great way to have students introduce themselves in advance of the class. Flipgrid is also a positive avenue to gauge interest and knowledge in a unit or lesson that you are about to introduce. Sometimes Flipgrid is more about finding out what students don't know and what they would like to know, rather than it is a report on what they have already learned.

One time Uses of Flipgrid

1. Check in on how students are doing, what they are learning, how they are feeling, or how they want to improve and move forward.
2. Evaluate the end of a unit or project.

3. Gather opinions on a major event or specific holiday.
4. Encourage student voice by asking students to make connections to personal experiences.

Ongoing Uses of Flipgrid

Flipgrid can be used every day or multiple times a day if students have frequent access to technology. Educators who use it every day are likely to use it as a part of regular assignments. They may use it to find out what students know at the beginning of a unit, to help students dive deeper into explaining and applying the content in a myriad of creative ways, or to evaluate the content at the end of the unit. Frequent users may also use Flipgrid as a way to start the day by involving every student in a discussion. Educators could feature a different student's response every day. In order to take advantage of the active social nature of Flipgrid, frequent users can allocate time for students to respond to each other's Flipgrid responses, either face-to-face or on the grid. Educators might also encourage students to post their own questions and topics to Flipgrid to start new conversations. Now is the time to think more critically about how you can connect Flipgrid to the content and purposes of your classroom.

Example Topics, Questions, and Themes Mapped to specific Learning Techniques

1. Make it Personal ^[4]

- Instruct students to think of a situation they have personally encountered that is affected by the current computer science content.
- Ask students to explain a situation in which their prior beliefs were contradicted by scientific evidence.

2. Invite Comparison ^[5]

- Invite students to compare ethical and unethical social behavior online.
- Encourage students to compare different types of coding methods.

3. Find Meaning ^[6]

- Help students choose scientific questions that matter to them and then guide them in taking steps to investigate those questions.
- Students should discuss the process of discovering answers to questions in as much detail as possible.

4. Be Current ^[7]

- Encourage students to find ways to use current events (including weather) and holidays as stimuli to prompt the investigation of a scientific question.

5. Use Visuals ^[8]

- Encourage students to use objects, graphs, written equations, and spreadsheets to display experimental results and to help students visualize the process being described.

6. Collaborate ^[9]

- Instruct students to work together on projects that require several steps like collecting data or in situations where students are doing something new.

Grades K-5 Topics, Questions, and Themes ^[10]

1. Make it Personal

- Students could describe a time when they used a technology to solve a problem and how they would have approached the situation differently had the technology not been available.
- Encourage students to propose an idea for a software program that they would enjoy using.
- Invite students to share an interview with a person who did not grow up using computers.

2. Invite Comparison

- Instruct students to compare software and hardware.
- Invite students to compare the different types of computing.
- Encourage students to compare results from different search engines.
- Ask students to compare the amount of time it takes to complete a task using a computer or without using a computer.
- Instruct students to compare how social behavior is different in person vs. online.

3. Find Meaning

- Ask students how they can use a computer to answer “Who? What? When? Where? Why? and How?” in response to an important topic.

- Encourage students to share a list of statements to describe how to complete a task.
- Invite students to demonstrate how to complete an important task using step-by-step instructions.

4. Be Current

- Encourage students to evaluate new computer products that enter the market.
- Ask students to consider how they might design their own multimedia project.

5. Use Visuals

- Encourage students to use computers to design a diagram of how something works.
- Instruct students to use visuals to explain how 0s and 1s can represent information.
- Invite students to show how strings of bits can represent alphanumeric information.

6. Collaborate

- Instruct students to collaborate in designing multimedia tools.
- Collaboration may be especially helpful if students are starting a new topic that they don't feel entirely comfortable with yet.

Grades 6-8 Topics, Questions, and Themes

1. Make it Personal

- Encourage students to describe the way they use good information security practices on the Internet.
- Discuss the role of computers in the future jobs students are considering.
- Invite students to describe ethical issues that they face online.

2. Invite Comparison

- Ask students to compare different algorithms to solve the same problem.
- Invite students to compare a computer modeling of a behavior to an actual behavior.
- Ask students to compare human intelligence to machine intelligence.
- Encourage students to compare the positive and negative outcomes of computing on culture.

3. Find Meaning

- Let the class decide on an important problem and use abstraction to break the problem down into subproblems. Then practically apply algorithms.

4. Be Current

- Instruct students to consider and evaluate new software and hardware that enters the market.
- Invite students to consider the current and future impact of an unequal distribution of computers worldwide.

5. Use Visuals

- Recommend that students visually represent problem states, structures, and data using graphs, charts, network diagrams, and flowcharts.
- Encourage students to visually demonstrate how to execute an algorithm.

6. Collaborate

- Invite students to work together to solve a problem using a programming language.
- Collaboration may be especially helpful if students are starting a new topic that they don't feel entirely comfortable with yet.

Grades 9-12 Topics, Questions, and Themes

1. Make it Personal

- Ask students to use modeling and data to describe a phenomenon that is personally relevant to them.
- Have students discuss the role of computing in prospective jobs.
- Encourage students to write their own criteria for how to purchase hardware and software given their current knowledge.

2. Invite Comparison

- Instruct students to compare techniques for analyzing large datasets and smaller data sets.
- Encourage students to compare digital information in terms of its representation and trade-offs.
- Invite comparisons of programming languages and their uses in solving different types of problems.
- Ask students to compare various types of input and output.

- Encourage students to compare the positive and negative results of technology on culture.

3. Find Meaning

- Invite students to use mobile devices to create and implement a mobile app that addresses something that they find important.
- Encourage students to use their knowledge to solve software and hardware problems in everyday life and explain a time when they were able to solve the problem.

4. Be Current

- Ask students to compare how different social media is used to report on and respond to current events.
- Invite students to consider how hacking, privacy concerns, and software piracy are currently being addressed.

5. Use Visuals

- Recommend that students visually represent problem states, structures, and data using graphs, charts, network diagrams and flowcharts.
- Invite students to visually demonstrate how to execute an algorithm.

6. Collaborate

- Encourage students to collaborate on and share a webpage or software artifact.
- Collaboration may be especially helpful if students are starting a new topic that they don't feel entirely comfortable with yet.

Example Social Feedback (Assessment) ^[11]

1. Building feedback -- provide feedback that helps move students toward the next level of critical thinking on a topic.
2. Highlight student videos in class -- every day or after every use of Flipgrid, be sure to show a few example videos in class and have students discuss the videos and provide feedback.
3. Encourage students to provide feedback on Flipgrid in response to other students' videos on the grid. Students can then respond to those responses, creating response chains that continue growing on interesting topics. Encourage students to keep those conversations going!
4. Students can also evaluate their own work in a Flipgrid video by discussing what they would do differently if given the opportunity to repeat the project.

- Celebrate excellent videos by embedding them on your classroom website or sharing them with the broader community through other social networking sites, school organizations, or parent organizations.

Standards Alignment

We are giving you just a few of many standards that could be met using Flipgrid. Once you start using Flipgrid, you will find many ways the platform can help meet standards in your classroom.

1. Standards that align well with “Make it Personal”

- **CCSS.ELA-LITERACY.CCRA.SL.1**
Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others’ ideas and expressing their own clearly and persuasively.

2. Standards that align well with “Invite Comparison”

- **CCSS.ELA-LITERACY.RST.6-8.8**
Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6-8 texts and topics.
- **CCSS.ELA-LITERACY.RST.6-8.9**
Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.
- **CCSS.ELA-LITERACY.RST.9-10.9**
Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.

3. Standards that align well with “Find Meaning”

- **CCSS.ELA-LITERACY.CCRA.R.2**
Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
- **CCSS.ELA-LITERACY.CCRA.W.7**
Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.

4. Standards that align well with “Be Current”

- **CCSS.ELA-LITERACY.CCRA.R.7**

Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

5. Standards that align well with “Use Visuals”

- **CCSS.ELA-LITERACY.RST.6-8.7**

Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6-8 texts and topics.

- **CCSS.ELA-LITERACY.RST.11-12.7**

Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.

6. Standards that align well with “Collaborate”

- **CCSS.ELA-LITERACY.CCRA.SL.1**

Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others’ ideas and expressing their own clearly and persuasively.

- **CCSS.ELA-LITERACY.CCRA.W.6**

Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

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