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## Teacher Turns to Podcasts, Students Tune into Learning



Amol Patel, biology teacher at Heritage High School in Leesburg, Virginia was a first-year teacher when he discovered that the use of podcasting can transform instruction in the classroom. The Knowles Science Teaching Foundation Fellow initially implemented [podcasts as a solution](#) to poor attendance.

“I made podcasts of lectures, including the best questions asked in class, so that students who missed class could watch them and keep up,” said Patel.

Before Patel knew it, all of his students were turning to podcasts to study for tests and review material before class. It quickly became apparent that podcasting was a way to better serve all students.

Students even asked him to convert the files into iPod-friendly versions so that they could download and watch them whenever and wherever they went. “These kids have grown up entirely around computers and digital media, so it was only natural that they wanted me to create more digital content,” said Patel.

The positive feedback has resulted in the creation of a podcast digital library on the class website. Students are now required to watch podcasts and take notes on the content as part of essential class preparation. The material they contain is not repeated in class and

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#### Knowles Science Teaching Foundation



The Knowles Science Teaching Foundation (KSTF) was

established by Janet H. and C. Harry Knowles in 1999 to strengthen the quality of science and mathematics teaching in United States high schools. The Foundation's programs include the KSTF Research Fellowships and its signature program, the KSTF Teaching Fellowships, which awards exceptional young men and women with a five-year fellowship as they embark on careers teaching high school science and mathematics. For more information visit [www.kstf.org](http://www.kstf.org).

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students take a short quiz to show that they have met each podcast's objectives.

"The notes requirement has led to students working in teams and thinking about the material more critically," said Patel.

The use of [podcasting](#) has helped Patel to interact with his students on a different level while maximizing his time in class, fostering critical thinking, and allowing for more discussions and experiences with science content. He recently presented a case study on podcasting before the Virginia Association of Science Teachers and is developing a website to give teachers the tools they need to make podcasting an easy and productive learning resource. This summer Patel plans to lead a workshop on podcasting for a group of Knowles Science Teaching Foundation Fellows. The Foundation, a national advocate for improving the quality of mathematics and science teaching in United States high schools, has supported Patel's work from the get-go.

**Below are tips from Patel on how you can [turn to podcasts](#) to tune your students into learning.**

**1. Make them well in advance!**

As you know, many of your students may not have easy access to the internet. Accessing the podcasts that you make may be an issue for these students, so make them several classes in advance so that your students will have plenty of time to get to a computer lab and watch them during normal school hours.

**2. Write learning objectives.**

Just like posting the objectives at the start of every class, list what the students should be able to do at the end of the podcast. This direction helps the students in their organization of note-taking and guides them in their new understanding of the material.

**3. Don't read from your podcast.**

Just like in PowerPoint, don't read your slides or materials. List questions for yourself to guide your discussion and use lots of images and other visual aides. This can also help to ensure that the podcasts don't run too long. Remember, students will most likely need to pause throughout the podcast to take notes.

**4. Don't be flashy.**

Don't forget that the point of educational podcasts is to share content using a new media source. Don't show-off! It distracts from the content and your expectations of the students, but adding a few things from time to time keeps your students on their toes.

**5. Follow up with assessment.**

By following up with an assessment of the podcast (I use open-note quizzes), the students have to use the information that they learned in the podcast. Students don't realize it, but they write down the learning objectives, listen to me talk about these objectives, write down notes about these objectives, and then have to re-read and write the content that meets these objectives. They are processing these objectives several times and are learning the material better in a shorter amount of time.